Amateur Radio

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100 YEARS 1910 ~ 2010 WIRELESS INSTITUTE OF AUSTRALIA

VK2DIK hosts WIA AGM Sunday lunch at Bowylie

Early YLs

VK100WIA first contact by VK3KI

Who were the Radio Inspectors?

STEALTH ANTENNA — dealing with a body corporate

Celebrating the centenary of organised amateur radio in Australia

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100 YEARS Centenary Year AGM and Convention

Canberra 28-30 May

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Editorial

Peter Freeman VK3PF

AGM weekend of activities

As many have experienced over the past few years, the WIA Annual General Meeting weekend of activities was once again an action packed program with plenty to take in.

The weekend formally kicked off with a tour of the communications side of the Black Mountain tower, followed by dinner at the Alto Restaurant.

Saturday morning commenced with brief formal AGM proceedings followed by the informal Open Forum. At the commencement of the Open Forum, many WIA awards were announced, with several recipients being very surprised! Whilst our President attempted to move quickly through the many reports to be considered, some lively discussion occurred at times. After lunch, we had presentations which reflected upon various aspects of radio communications to date, with the focus upon amateur radio activities with VK over the last 100 years.

For many, the highlight of the weekend was the Centenary Dinner, which included a live ARISS contact involving local secondary school students. With representatives from a number of sister amateur radio societies and the IARU, the ACMA, key industry players involved in the amateur market, and of course many WIA members and family members, around 200 watched and listened with interest as the students passed their questions to the ISS and listened to the replies from astronaut Tracy KF5DBF on board the ISS.

In addition, there were many presentations made during the evening, with the international representatives formally recognising the centenary of the foundation of organised amateur radio in Australia.

One particularly significant presentation was that of Marilyn VK3DMS, who passed her large, award winning, philatelic collection with its communications theme on to the WIA.

The activities planned for Sunday morning were a washout – literally. Whilst we had been spending all of Saturday inside the meeting venue, the Canberra weather had been bleak – cold and wet. The activities planned for a local park on Sunday morning were therefore cancelled, and the live broadcast of the weekend's news broadcast conducted from within the meeting venue, utilising the radio equipment loaned to the WIA by Icom Australia for the VK100WIA station.

Later on Sunday morning, most attending the AGM made their way about 30 minutes north of Canberra, to the property of Dick Smith VK2DIK, the Centenary Patron, near Gundaroo. The decidedly damp and dreary weather conditions did not stop all from enjoying themselves After lunch, attendees started their trip home.

It was terrific to catch up with many people over the weekend, but given the packed program, many of the eyeball contacts were far too brief.

But you will be able to read accounts of many of the activities from the weekend in this issue of *AR*. With one hundred years behind us, this issue features the AGM weekend of activities as its primary theme.

My personal trip home involved a small detour towards Sydney to visit a friend in the southern highlands for the night. The real trip home commenced late on Monday morning, following a detailed review of progress on my host's next antenna project. A long drive followed before returning to the usual work tasks, after an enjoyable long weekend.

June and July activities

Since returning home much of my spare time has been spent on preparations for GippsTech 2010, to occur over the weekend of 10 and 11 July. The printed Proceedings document had been sent to the printer prior to the AGM weekend, but I still needed to organise the electronic (colour) version, which was finally finished (I hope) over the Queen's Birthday weekend (even though I had to work today – the "holiday" Monday in several states).

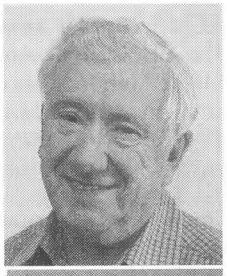
I look forward to catching up with all attending GippsTech, and perhaps a few others at the Gippsland Gate ARC hamfest the following weekend.

Remember – keep your ears alert for an opportunity to work the VK100WIA station and to work towards the Centenary Award. And plan for the RD and ALARA Contests and the ILLW event in August.

Cheers, Peter VK3PF **ar**

On-air behaviour (again)

WIA comment



Michael Owen VK3KI

A News item in this issue tells of the fact that the ACMA has cancelled the licence of an amateur. This was a late item for my report to the Open Forum, and it has attracted quite a bit of discussion.

I think it is worthwhile setting out the WIA's position in relation to the general issue of on-air behaviour in the light of that action and the discussion.

A matter that did attract comment was the fact that the ACMA did not identify the amateur whose licence was cancelled.

It is important to recall that the cancellation of an amateur licence, that is, an apparatus licence, is an administrative act, reviewable by the Administrative Appeals Tribunal. It is not a criminal prosecution in open court.

Indeed, the decision to grant an apparatus licence, or more likely, the decision not to grant an apparatus licence, is a decision that is also subject to review.

The ACMA takes the view that as it is an administrative decision it should, as a Commonwealth agency, respect the privacy of the individual concerned and therefore should not disclose the identity of the individual.

The WIA is of the opinion that even if the identity of the person whose licence has been cancelled is not disclosed, the fact of the cancellation should be given full publicity. Many amateurs have complained of the on air behaviour of a few. Indeed, some have been very critical of the WIA for allowing such behaviour to continue.

Not only does the WIA believe that the fact of the cancellation should be publicised, it believes that the nature of the conduct leading to the cancellation should likewise be publicised.

The WIA encourages amateurs to bring such conduct to the attention of the ACMA

In the May 2006 "Comment" I discussed the general issue of on air behaviour. I made a number of points. I looked at a 1978 "Amateur Operators Handbook" which defined "prohibited traffic" as including:

> *"news of or on behalf of, or for the benefit or information of, any industrial, commercial, political, social or religious organisation or any-one other than the operator or the person with whom he is in communication."*

I pointed out that such a prohibition did not exist specifically today.

If someone makes a comment on a political matter, that is not of itself unlawful today.

I also pointed that what may have been profane, obscene, indecent or otherwise objectionable in 1978 may not be today.

Of course, the licensee must use an amateur station "solely for the purposes" defined in the Amateur LCD. That is an obligation that some seem to overlook.

But generally speaking, it is easier to turn to another frequency than worry too much about such comments.

However, there is behaviour that should not be ignored.

In the Comment of May 2006, I expressed the WIA then position as follows:

> "In the end, if the regulator is failing to act when presented with clear and unambiguous evidence of wrong doing, the WIA will request the regulator to act against those clearly in breach of the law."

Causing deliberate interference is wrongdoing that should be acted against.

I have expressed a concern to the ACMA that such conduct against an amateur station, if ignored, could encourage the offender to cause interference to something more interesting, for example to a safety service, such as an air traffic control station, or an emergency service organisation.

In short, there is some behaviour which may be unacceptable but is not unlawful and which we cannot expect the ACMA to devote resources to policing.

But there is other behaviour against which we can expect the ACMA to act.

I pointed out then, and I point out again, that the WIA is not a law enforcement agency.

Why cannot someone whose licence is cancelled simply apply for another licence?

The answer is to be found in section 100 (5) of the *Radiocommunications Act 1992*, which is:

> *(5) In deciding whether to issue an apparatus licence, the ACMA may also have regard to whether, in the 2 years before the application, the applicant has been the holder of an apparatus licence that has been cancelled otherwise than under section 153H.*

Not that the decision to issue an apparatus licence is still a decision for the ACMA, but note the guidance given by the sub-section.

It was suggested at the Open Forum that the cancellation of an apparatus licence would not deter some people, but that they would just continue to transmit without a licence.

Let me refer to section 46 of the Radiocommunications Act which provides that if a person operates a "radiocommunications device" otherwise than as authorised by licence, then "if the radiocommunications device is a radiocommunications transmitter" the penalty, if the offender is an

continued foot of next page

WIAnews

ACMA cancels amateur licence

The Australian Communications and Media Authority has cancelled an amateur station licence following an investigation that uncovered continuing breaches by the licensee.

Under the Radiocommunications Act 1992, the ACMA can suspend or cancel an amateur licence if the licensee contravenes a condition of the licence. In this case, crucial information was provided by other radio amateurs that alerted the ACMA to the ongoing non-compliance and assisted the investigation. The breaches included causing interference to other stations, failing to use a call sign and transmitting an unmodulated carrier.

The ACMA made the decision to cancel the amateur licence when other compliance and enforcement measures had failed. The ACMA reported that every effort had been made to assist, encourage and educate the licensee to understand the importance of compliance with licence conditions.

Despite repeated warnings, the ACMA found that non-compliance continued over an extended period of time.

The WIA has welcomed the action taken by the ACMA. "While it is extremely unusual for amateurs to ignore their obligation to comply with the law, the fact is that there have been instances of extreme behaviour that requires enforcement action. This action by the ACMA should remind us all that it will act when necessary" said WIA President, Michael Owen VK3KI.

WIA now owns its premises

Settlement of the purchase by the WIA of 20/11 Havelock Road, Bayswater took place on Tuesday 8 June 2010. When announcing purcgase plans, the Directors were considering calling the premises Andersson House, in honour of Henry Anderssson VK8HA. Henry was an Honorary Life Member of the WIA, the first national WIA Intruder Watch Coordinator, and ran the VK8 QSL Bureau for 38 years.

Henry Andersson passed away on 6 October 2004. He left his property at Humpty Doo, near Darwin, to the WIA. That generous bequest provided much of the funds which bought the Bayswater premises

The name was supported at the WIA's Open Forum following the AGM at Canberra, the Directors ratified it, and a plaque is being obtained.

A member is able to provide a photograph of Henry. The WIA will shortly be publishing this and photographs of its new premises.

New D-STAR repeater for Canberra

Icom Australia has donated a new D-STAR repeater to the WIA for installation in the Canberra area.

This is to celebrate 100 Years of the WIA. The gift was announced by Takashi Aoki, Manager of Icom Australia, at the official WIA Centenary dinner.

The Canberra Region Amateur Radio Club will be the WIA D-STAR Club responsible for the installation and operation of repeater on behalf of the WIA. The repeater will be operational on 2 metres and have the callsign of VK1RWN.

IARU Region 3 Directors meet

The IARU Region 3 Directors held their AGM in the three days before the WIA Weekend in Canberra on 28, 29 and 30 May 2010.

WIA President Michael Owen VK3KI is also Chairman of the Directors. The other Directors are Peter Lake ZL2AZ, Shizuo Endo JE1MUI, Prof. Joong-Guen. Rhee HL1AQQ and Gopal Madhavan VU2GMN.

Panyot Danev LZ1US Executive Committee Member from IARU Region 1 and Timothy Ellam VE6SH IARU President also attended. All participated in the WIA Weekend.

Major matters considered included the next Asia-Pacific Telecommunity (APT) Preparatory Meeting for WRC 2012, the relationship with the APT and the IARU Monitoring System.

VK3KCD Regional VP of ROAR

Peter Lowe VK3KCD has recently become Regional Vice President of the Australia, New Zealand and Oceania (ANZO) region of ROAR.

The International Fellowship of Rotarians of Amateur Radio (ROAR) is one of Rotary's oldest international fellowships. It has members from many countries, the largest numbers being in the USA, Japan, and the UK.

There are a number of active members in Australia and New Zealand and its main activity revolves around weekly nets, primarily the ANZO Europe net on 14 MHz.

ROAR usually has a presence at the annual Rotary International Convention which was last held in Birmingham UK and a station was operated under the call of GB2RI.

Any amateurs who are also Rotarians or past Rotarians are welcome to join and further information may be obtained from the ROAR web site at www.ifroar.org Peter Lowe may be contacted at vk3kcd@bigpond.com **ar**

continued from previous page

individual, is imprisonment for two years. In short, it is a serious criminal offence.

It could hardly be clearer that an offence is committed by someone continuing to transmit whose licence to transmit has been cancelled.

I cannot speak for the ACMA. But I would find it inconceivable that a regulator that has enforcement powers (and obligations) would turn a blind eye to anyone silly enough to thumb their noses at it in that way.

The WIA's position is this: it supports the ACMA acting against those individuals, whether radio amateurs or not, whose conduct is such that it is clearly unacceptable, for example knowingly causing deliberate interference to radiocommunications.

The WIA encourages amateurs to bring such conduct to the attention of the ACMA, particularly with appropriate details and recordings of such behaviour.

Equally, we must distinguish behaviour that is merely bad manners, and the best way to avoid that is to turn to another frequency.

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We were there too
Early YLs
Before The War

Christine Taylor VK5CTY
(from the ALARA collection)

In this Centenary year of the Wireless Institute of Australia we should remember that, although they were few in number, there were YL amateurs.

We are fortunate to have, within the amateur history a number of early callbooks, including one compiled by John Moyle, editor of "Wireless Weekly" which became "Radio and Hobbies" and eventually "Electronics Australia".

The John Moyle callbook for 1938 lists 13 YLs, each with the title of Miss or Mrs in front of their name. Most of these ladies we do know something about but for a few, their names are all we have. The list of names, as supplied by Rod VK3TJ from that callbook are:

1 VK2GA Mrs F.V. McKenzie
2 VK2YG Miss L.N. Litchfield
3 VK3HM Mrs E.L.Hutchings
4 VK3HQ Miss M.L.Hutchings
5 VK3YL Miss M.A.Marshall
6 VK4JH Mrs I.J.L.Humphry
7 VK4LO Mrs V.E.Nolan
8 VK4YL Miss F.M.MacKenzie
9 VK5YL Miss B.A.Geisel
10 VK6JC Miss J.C.Chinery
11 VK6MH Mrs M.L.Hill
12 VK6YL Miss R.V.Longley
13 VK7YL Miss J.T.Crowder

Many of these names and callsigns are missing from the 1947 callbook, although a few appear in later years, sometimes under their married names, because during the War years other interests had taken the place of amateur radio.

ALARA has gathered as much of the history of early YLs as possible but we have no information about VK2YG or VK6JC. These are the stories we have.

Florence McKenzie (nee Wallace) VK2GA (or VK2FV) has been mentioned in AR many times over the years because ALARA has adopted her as a model for us all and after whom we have named our most important trophy, but there may be people who have not heard of her.

Photo 1: Violet Florence McKenzie nee Wallace, VK2FV/VK2GA.

Florence was a fully qualified electrical engineer, wiring houses and generally installing some of the earliest electrical equipment. In fact, when the first electric stove was manufactured, and Florence realised there were no recipe books for electric stoves, she wrote one. She also kept her very first electric stove, even though she subsequently had much more modern ones.

She got her amateur licence in 1921 and passed her exam in 1925 (this was the way it was done in those days) and was given the callsign VK2GA. Her interest in amateur radio was triggered by the men who used to frequent her electrical shop in Royal Arcade in Sydney. They used to ask for things like condensers, and wire to wind coils and later electronic valves. By taking an interest in the purpose to which these items were to be put, Florence came to know about radio.

Always it was Morse code that fascinated Florence, and she found learning the code very easy when she sat for the exam. It was teaching the Code for which "Mrs Mac" came to be known by thousands of men and women.

When Mr Chamberlain came back from Europe with his famous "Peace in our Time" paper in his hand, Florence realised that war was imminent. She set up a Morse Code Training school in a loft near her shop and started teaching. She foresaw the need for radio communications in the event of a War and that there would not be enough skilled people to fill the need.

The school became known as the Women's Emergency Signalling Corps because of the emphasis on women, but it also taught thousands of men who wanted a skill to offer the Services. Later service men and women from all over the world came to Mrs Mac's school.

But it was the women operators for whom Mrs Mac fought a political battle. She saw that if there were women in the services, who were skilled in communication, it would free the men to fight. The Army and the Navy already had women in their ranks but the Air Force was exclusively for men until Mrs Mac persuaded the then Prime Minister, Billy Hughes, of the wisdom of her idea. And so the WRAAF service was born, in 1942.

There are many stories of how the students were helped to 'hear' the pattern of the code letters and how the better students became the teachers of the new ones, and how much fun everyone had as they learned. The school continued after the war for a number of years, with pilots from the major airlines around

the world as students. No fee was ever charged.

Florence Wallace was also the first YL member of the WIA (NSW Div), she was a founder of the "Wireless Weekly", and her story was told in a play "Electro Diva" performed in 1995 in the Napier St Theatre in South Melbourne (photo 2 and 3).

Mrs Mac was awarded the OBE for her services.

The two Hutchings YLs Elizabeth VK3HM and Marjorie VK3HQ were part of a real radio family, with mother, a son VK3HL, and a daughter all with licences. It was the son, Allan who first got mother and sister interested as he had them listen to the music and the voices from the other side of the world, coming out of his crystal set.

Elizabeth was licensed in 1927 and Marjorie in 1930.

Photo 2: The poster promoting the play Electro Diva.

Photo 3: Carole Parker played Ms Mac in "Electro Diva".

Elizabeth's special claim to fame is that she Worked All Continents (WAC) on Christmas Eve 1929. She then waited up till she could work England as well. This was all with a Morse key, of course. This WAC was reported in the Listener In" in 1930.

The family home "Bryn Avon" at Callawadda in Victoria was host to many amateur gatherings before the War, so is remembered by many amateurs of the day.

Elizabeth became an SK very suddenly in 1942 and Marjorie did not take up her licence after the War but Allen continued

Photo 4: Elizabeth VK3HM.

Photo 5: The QSL card of Marjorie Hutchings VK3HQ.

operating until into the 1950s. when he and his wife Lilla had the pleasure of visiting and meeting some of the 'voices' with whom they had become friends over the years while in the UK.

Austine VK3YL gained her amateur licence in 1930. Her interest was 'sparked' by the gift of a crystal set to while away the hours while she was recovering from a tonsillectomy. She became so interested she built her own crystal set and eventually her own transmitting and receiving equipment. In fact this rig was on show in one of the Melbourne Exhibitions.

Before the War Austine used the key, as did all the amateurs, and during WWII Austine taught Morse code through the

Photo 6: Austine VK3YL Circa late 30's.

WIA. She actually joined the RAAF Wireless Reserve in 1934, the first woman to do so, and served with the RAAF before the WRAAF was formed, she was 3D6 of section VMC4.

Photo 7: Austine VK3YL with one of her many trophies.

Austine used telephony on AM and SSB, after the War using war surplus equipment but eventually brought some modern transceivers.

During her long amateur radio career, Austine gained her DXCC, was the first WAC YL, and was the third WAZ YL. She was a member of RSGB and YLRL as well as WIA and was very supportive of ALARA from its inception.

Dorothy VK4DH (not in the 1938 callbook) was the first YL licensed in VK4. She sat for the exam in November 1929 and was given her licence and callsign in 1930. There was an article about her in "Wireless Weekly" for April 1931.

Ida VK4JH was the second Queensland YL. She was licensed in 1933. but no more is known about either of these ladies. VK4LO, listed in the 1938 callbook is completely unknown to ALARA

Madeline VK4YL got her licence in about 1933 when she was only 12 years old. The "Teleradio" magazine for July 1935 describes Madeline as the youngest radio amateur in the British Empire. Her father was VK4GK. He no doubt encouraged her in her studies but he could not sit for the exam for her.

Madeline was very proficient at Morse code and using this mode she won at least four awards in the BERU Contest, 13th in the Junior section in 1935, 7th in that section the next year, then 14th and 6th in the following years when she was in the Senior section. An amazing achievement, at whatever age!

She also sought and made contact with many rare DX stations, who were no doubt astonished if they realised how very young she was.

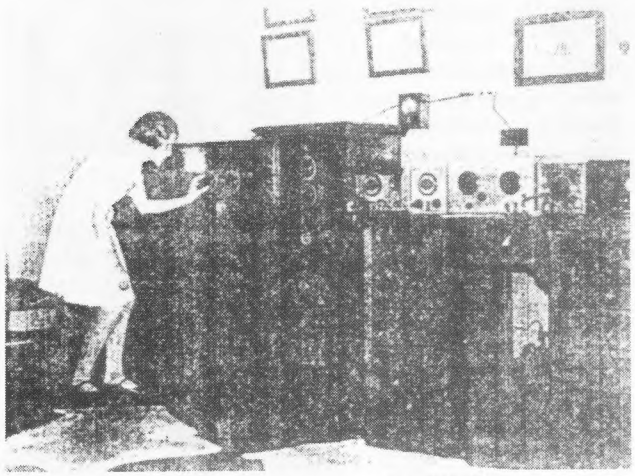


Photo 10: Madeline with her 'rig'.

Like all amateurs, Madeline had to close her station down at the beginning of the War. By the end of the six years she had developed other interests, which she, no doubt pursues with as much enthusiasm as she once gave to amateur radio.

Betty VK5YL passed her exams in 1936. She was a country girl, living in Murray Bridge, who built her own gear. She also had it exhibited in the Exhibition in South Australia. She was the first YL in VK5 to gain her amateur licence. She also gained her commercial operator's certificate. Her certificates were on display in the Telecom Museum in Adelaide till this was dismantled in the 70s.

Betty operated mostly on the 40 and 80 metre bands with only the occasional venture into the 20 metre band. As she changed her equipment she changed the information on

Miss Betty Geisel, Murray Bridge, South Australia
VK5YL
Hello VK5BG ... was glad to
meet u on 7 mc 25.6.38
Ur sigs were RST 599 x.
Rig here ... tri-tet ... for 42 Final.
Input 25 watts fm DC mains
230 volts.
73 Betty

Photo 11: The QSL card of Betty Geisel VK5YL.

her QSL cards.

She even made her own batteries by extracting the carbon rods and de-polariser from dry cells and mounting them in a solution of sal-ammoniac or common salt in Marmite jars

Betty did not take up her amateur licence after the war but worked for a number of years as a technical sales assistant at Gerard and Goodmans –THE electronic and electrical store in Adelaide well into the 70s.

She trained as a school teacher after that and lost interest in amateur radio.

Miss J.C. CHINERY VK6JC we know nothing about, but the other early VK6 YLs are well known.

Mary (known as Bobby) VK6MH lived in Wiluna, so she has a mine head on her QSL card. She passed her AOCP in August 1936. Her certificate was numbered 1976, so there were not very many amateurs, at that time.

Her OM was also licensed, he was VK6AH. She was a member of the WIA and joined ALARA when it was formed. She would have used only CW before the War but a QSL card from 1947 gives only a RS report, not a RST report, indicating that she was using telephony by then.

Vicki VK6YL was first licensed in 1936. She has the honour of beating Walter Lindrum at billiards, by 31 points (with over 750 points to help her!!). She was a member of the

WIA and edited some of the early WIA Bulletins.

During the War she was among the first WRAAFs once the service was started. She happened to be in headquarters in Melbourne, receiving signals from Darwin, when it was bombed. The message was:

"Hold it! I'm just ducking under the table. The Japs are

Photo 12: Vicki Page. VK6YL.

bombing us!" (the punctuation may not have been sent quite like that but the message was no doubt accurate!)

Back in Perth, Vicki taught Morse code to Air Training Corps cadets.

After the war other interests occupied Vicki, so she did not continue in amateur radio.

Joy VK7YL was training to be a school teacher when she sat for her amateur exam in 1936 and passed with flying colours. She was encouraged by her father.

Joy passed her examination in 1936, one of eight students, the others all men, and one of only two to pass that day.

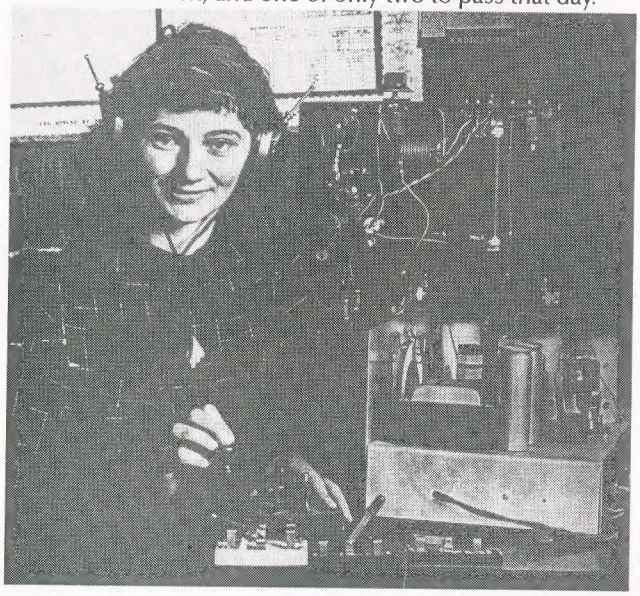


Photo 13: Joy VK7YL.

She had her father help to build her a 'shack' as the rest of the family 'couldn't stand the noise".

She made many contacts across Australia and the world, and spoke many times with Madeline VK4YL. She was very interested in a contact one night with an American amateur who described how he and a couple of other amateurs had provided communications to people in a town isolated when a dam broke. This was no doubt the fore-runner to the emergency networks of today.

Joy said the Wireless Institute members were of enormous help to her in those early days.

Joy took up her amateur licence after the war and was active for over 40 years.

On the door of the room in her house, from which she has now moved to a retirement village, she still had a sign with her callsign on it.

In 2008, Joy gave a welcoming speech to the members of ALARA, at the ALARAMEET in Ulverstone. The recording was made on her 93rd birthday as she was packing up to move into the village.

Mavis VK3KS sat for her amateur exam in 1939 and continued to be active for 70 years (see July AR 2009). She became interested through Ivor VK3XB whom she met as a country school teacher at Lallat North, and Mavis' parents boarded the new teacher, as they had been doing for years. Ivor set up a battery operated rig in his room and strung a vee-beam from some trees. Mavis was hooked!

Ivor and Mavis married after the war and the double radio shack was born.

After joining YLRL in 1950 and participating in a number of their Contests, Mavis won first place for DX YLs on CW in the 1958 YL/OM Contest.

Over the years, after many late nights Mavis has won

Photo 8: Mavis Stafford VK3KS.

several gold and silver cups and over a hundred certificates, as well as DXCC, WAZ, WAS DXCC and others.

Mavis was one of the founding members of LARA, later ALARA, and, with Ivor, wrote the history from 1975 to 1990.

She was recognised in 2009 by the WIA for holding her licence for 70 years.

ar

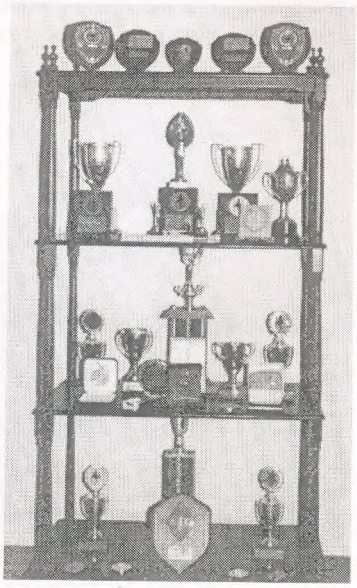


Photo 9: Some of Mavis' trophies.

Highly successful special callsign VK100WIA

The VK100WIA callsign was launched as part of the WIA Centenary Celebrations by the WIA President Michael Owen VK3KI on Friday 14 May. The first contact was with Geoff Atkinson VK3TL on 40 m SSB with signals five by five both ways.

The WIA was rostered for the month of May, resulting in it being put to air by Directors Bob Bristow VK6POP and Chris Platt VK5CP, WIA Centenary Committee Member Jim Linton VK3PC, David McAulay VK3EW, and also on behalf of the WIA – Amateur Radio Victoria and Amateur Radio New South Wales.

Michael VK3KI, WIA President, making the first contacts with VK100WIA.

The conclusion of the WIA period occurred during the WIA Centenary Convention in Canberra 26-31 May, with members of the Canberra Region Amateur Radio Club operating from the Rydges Lakeside Hotel.

While at the microphone during Amateur Radio Victoria's turn during the WIA period, David VK3EW had two interesting contacts which he spoke about at that organisation's annual general meeting.

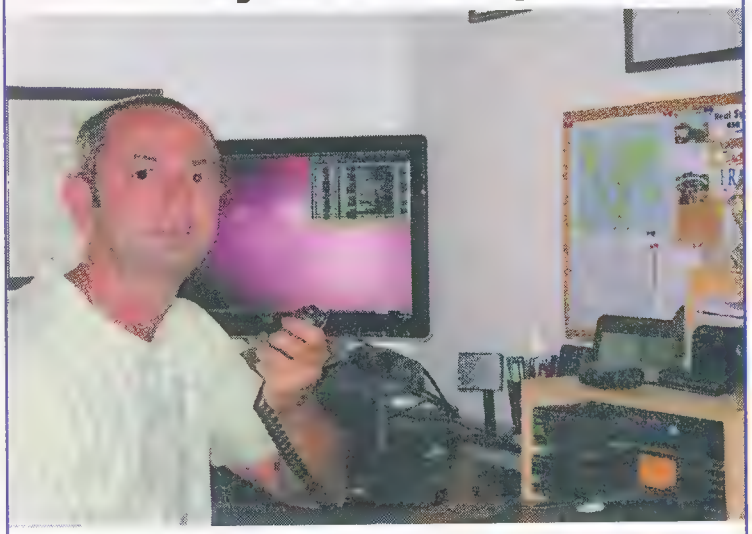
The first was a ZL station who had previously worked VK call areas 1-9, and on finding a station with a VK100 prefix, wanted to know "Where do the numbers end?"

However David said he will never forget the call from Franck Alcidi VK8FNCY on 40 m. Quickly sensing that this was a relatively new radio amateur, the veteran operator asked him "How long have you had the callsign?"

Frank VK8FNCY replied he had just got it and VK100WIA was his very first contact. He had heard David operating the special call the previous night, adding "I didn't call then because you sounded too busy".

Then during the month of June a total of 10 WIA affiliated clubs were on the VK100WIA operating roster. They pushed up the QSO tally which was expected 4,000 by the end of June or during early July. **ar**

From day one to 100 years on



Franck VK8FNCY neatly and serendipitously intertwined his personal amateur radio history with WIA Centenary celebrations.

His first ever contact with his brand new call sign was to David VK3EW at the VK100WIA microphone.

Franck runs an Icom IC-718 for HF and an Icom IC-208H for 2 m/70 cm. Both have a Manson 23A (SPA-8230) power supply. Antennas are 8.5 m Tet-Emtron Tev-1vertical for HF connected to an LDG Z-100Plus autotuner with a X-50N ACS 1.7 m vertical for 2 m/70 cm.

Who were the Radio Inspectors? What did they do?

Rob Curr VK5RC

On the hundredth anniversary of the Wireless Institute of Australia, members and amateurs generally may reflect on their association with the Radio Inspectors, employed by, in turn, the Postmaster General's Department, Post and Telecommunications Department, Department of Communications, Spectrum Management Agency and now the Australian Communications and Media Authority.

First contact with these authorities was made to obtain the internationally recognised Amateur Operators Certificate of Proficiency, then later to secure a licence with callsign, to authorise the establishment and operation of an amateur radio station.

A later contact may have been made when an upgrade in qualification was desired, or a visit was made by an inspector, to inspect the amateur station.

Some amateurs may have encountered these Inspectors prior to all the above situations – they may have met them in court following detection of their station being operated without an appropriate licence.

Inspectors were, however, mainly involved with marine, broadcasting, land mobile, outpost radio, spectrum monitoring, frequency allocation, equipment standards, and radio frequency interference (RFI) detection and elimination areas.

Interference investigation to broadcasting and radio communications services was a major activity.

Legislation

The International Telecommunication Union was formed as the International Telegraph Union in 1865, refer note 1, to address world standards on wireless telegraphy usage throughout the world. Later, the Titanic disaster forced a closer look at radio frequency management world-wide, with frequencies being set aside for marine distress as well as bands for radio experimenters.

A World Administrative Radio Conference (WARC) was held in Germany in 1903, with only a few significant countries attending, to address the monopoly the British Government had given the Marconi Company, over the use of radio spectrum, and undertook to establish a more worldly plan.

The 'Radio Regulations' ensuing from these conferences were subsequently incorporated, as necessary, into the Australian legislation, the 'Wireless Telegraphy Act'.

During the years prior to World War 2, the specific spectrum needs of amateurs were addressed at subsequent WARCs by representatives of the various countries. In post war years, amateurs were permitted to attend these conferences, in company with their country's delegation. The attendance of the Wireless Institute of Australia and the International Amateur Radio Union, at these conferences, proved of great value to the Conferences, and to their respective countries.

Progressively these international regulations were formalised in the Australian 'Wireless Telegraphy Act', and the later 'Radio Communications Act'.

Perhaps the most significant radio frequency management issue facing amateurs in Australia was the reinstatement of amateur licences after World War 2.

When hostilities commenced, all transmitting equipment was surrendered to the PMG's Department and sealed. Refer note 2.

After the cessation of hostilities, the Government made no initial effort to restore Australian amateur station licences, even though other countries were allowing such activity. The Wireless Institute of Australia made representation to the PMG on behalf of all amateurs, to commence the issue of licences.

After successful liaison, licences were again issued, with caution, allowing new amateurs to use only 50 watts DC input to the final amplifier of a transmitter, on successfully completing a 2 ½ hour theory paper (prose answers), and a 14 words per minute Morse code test. The licence would restrict the licensee to using Morse code only for six months. On completion of this period, he would be required to pass a further Morse test at 18 words per minute, build a modulator, and make on the air test transmissions. When these requirements were complete, he would be able to operate on voice, with a DC input of 100 watts!

The transition was made even more onerous, as the 'on air' tests had to be conducted with a member of the 'Amateur Advisory Committee'. The members of this committee were other amateurs, from the WIA and from the amateur fraternity at large, some of whom may have been less technically competent than the applicant amateur. This committee over the years unofficially became a pseudo regulatory authority, reporting directly to amateurs on their personal operating habits, with members in direct confrontation with amateur licensees. It became obvious that the responsibility to police the regulations under the Wireless Telegraphy Act rested wholly with the PMGs Department. Following claims

of bias from some alleged offenders, and a reluctance of amateurs to serve, the Committee was disbanded in all states in 1978.

Amateur radio licensing conditions continued to evolve during the post-war years, with very few privileges being released by the licensing authorities, except where backed by international conferences. Locally, very few privileges were given without successful representation by the WIA.

One particularly daunting area was the initial authorisation of amateur television repeaters. Some other Government agencies, associated with television broadcasting, found it difficult to believe that the ability to produce a 'compliant' transmission was within the ability of the amateur licensees. Some of the technical presentations in the applications had been prepared by amateurs engaged in the television industry, who were amazed that such difficulties were being exposed. The applicant's pressure on the Department paid off, and today we have excellent conditions for the continuation of television experimenting in Australia.

Today, we (amateurs) have relative freedom from the need to follow international standards, particularly in the digital/data modes, provided the transmission is within the allocated bands, it is at the correct power level and it does not cause interference to other radio-communication services. Experimental modes of emission are permitted, and are being developed almost daily throughout the world.

With the introduction of the Limited licence, the Novice licence, and the Foundation licence, further waves of amateur growth evolved, making it the popular hobby it is today. The now redundant need for Morse code skills, the availability of low operating voltage equipment, and the delegation of examination and licensing functions to the WIA, has made it possible for a wider section of the public to enjoy this most respected hobby.

Amateur station inspections

For some years the Department maintained the policy of inspecting amateur stations every year. This provided useful statistics on the ratio of stations licensed, to those capable of operating. Perhaps this may have been valuable information to an emergency service, the WIA or industry; however as inspections of stations became necessary in investigating complaints of interference to radio and television reception, yearly visits were abandoned. Another reason that could place a radio inspector on your doorstep was a complaint of interference from another radio communications service. Spurious signals, including harmonics and parasitic oscillations have been the cause of this from time to time. Complaints from aviation and defence services would warrant a complete inspection.

At one stage amateur stations were required to hold, at their stations various items, including copies of the latest operators 'Handbook', heterodyne frequency meter, absorption frequency meter, and signal monitor. The station licence had to be displayed with the equipment.

Power Measurement

Power measurement had its own difficulties. The method in earlier editions of 'The Amateur Operators Handbook' required a measurement of the DC input to the anode of the final amplifier, and the absence of a combination of components that would allow inputs greater than the permitted

Radio inspector Rob Gurr VK5RG in retirement in his own radio shack, circa 2001.

level. The licensee was required under this rule to provide test points to facilitate such measurements, sometimes compromising the safety of the installation. A power output measurement, including recognised techniques for measuring SSB transmitters, was satisfactorily addressed in the 1978 'Handbook', following liaison with the WIA. Radio inspectors, when measuring output power, were now able to use the same test equipment they used when testing commercial stations.

One unfortunate amateur operator, during a routine inspection, was found on one occasion to be using 200 watts DC input to the final amplifier of his transmitter. He was given a week to correct the power level to the allowable 100 watts.

During the week he replaced his high voltage transformer, selling the larger one to fund the replacement, acceptable, model. At the time, no amateur was permitted to use a *combination* of components that had powers in excess of 100 watts.

Coincident with the licensee complying with the conditions of his licence, an announcement was made that following negotiations with the WIA, the PMG Department had altered the legal power *output* to be now 120 watts, for CW transmitters, and removing the necessity for avoiding a component combination that would exceed this level.

The news of this change was received, direct from the WIA, by the licensee but after he had sold the transformer.

When the inspector returned a few days later for a re-inspection, he found the licensee was somewhat irate. He had heard from the WIA of the new rule, and found the inspector was not aware of the relaxation.

A case of the speed of amateur communications in contrast with that of the Public Service!

Frequency checks

One earlier requirement was for amateurs to hold at their station a method of measuring their operating frequency. It was later recognised it was of no concern to the Department what frequency they used, providing it was within the allocated band. Crystal calibrators and other home developed techniques were found to be satisfactory.

Safety Inspections

From time to time, safety aspects of concern to inspectors were pointed out to licensees (often from an experienced perspective, as many radio inspectors were also licensed electricians and familiar with the SAA Wiring Rules and Power Authority 'Conditions of Supply'). Any dispute was resolved by calling in an electrical inspector from the power authority; in one or two cases corrective modifications were required to the household wiring. An expensive penalty applied for non-compliance.

One inspector, during a routine amateur station visit, had cause to record a safety breach when he found a station established in a rear shed, with a bare dirt floor, and exposed high voltage power supply easily accessible to family and visitors. The owner of the station was a high level manager in a Government research establishment in an adjacent town.

When the Radio Inspector, some years later, sought a position in the same research establishment, to his surprise, one of the interview committee was the licensee that he had earlier put off the air on safety grounds. The inspector failed to obtain the position. No explanation was ever received!

The introduction of low voltage commercially manufactured transmitters for the amateur bands reduced the need for intimate inspection of the safety of such installations.

Monitoring stations

Monitoring stations were established in all capital cities, at District Radio Inspector offices and mobile in caravans from time to time. Apart from the checking of frequency accuracy, out of band operation, and the like, observations were made in a search for clear channels that may be allocated to applicants for future licences. Procedural matters such as prolonged conversations without identification, rebroadcast of other stations, or even bad language, were bought to the attention of licensees. Third party traffic at one stage was prohibited, as it was considered a financial loss to the major providers of the day, however deregulation in the telecommunications industry gradually allowed this facility to be authorised. It is interesting to note that after years of lobbying for this facility, few amateurs engage in this convenience, as the internet facilitates much more convenient messages to third parties.

A short period of monitoring concern occurred in 1975, when CB radio was authorised in the 27 MHz band, whilst it was still an amateur band. Confrontation between amateurs and CB operators was evident, and only solved by withdrawal of the band from amateur use. The confrontations were unfortunate; however a number of CB operators obtained some knowledge of the amateur service and eventually obtained an amateur licence, becoming good friends with those they had previously offended.

Out of band amateur transmissions were rarely encountered, due

"Hey, Old Timer..."

If you have been licensed for more than 25 years you are invited to join the

Radio Amateurs Old Timers Club Australia

or if you have been licensed for less than 25 but more than ten years, you are invited to become an Associate Member of the RAOTC.

In either case a $5.00 joining fee plus $8.00 for one year or $15.00 for two years gets you two interesting OTN Journals a year plus good fellowship.

Write to

RAOTC,
PO Box 107
Mentone VIC 3194
Ron Cook 03 9579 5600
or Bill VK3BR on 03 9584 9512,
email raotc@raotc.org.au for an application form.

to the useful and efficient intercommunication on other frequencies, between these stations.

Radio-communications, television and broadcast interference

With the introduction of sound, and later television, broadcasting in Australia, the Government (PMG) set up a wireless and television licence regime. Wireless licence inspectors held records of licensees in each street, suburb and town and found it easy to locate unlicensed receivers, obtaining many prosecutions and subsequent financial penalties. To some this was the most dreaded arm of the PMG broadcasting machine.

The radio inspectors were a general help to the listener/viewer experiencing reception difficulties, often contributing to solving domestic social problems, as well as technical solutions to interference and other difficulties.

In 1975 the Postmaster General's Department was split into three new entities: Telecommunications Commission (Telecom), Postal Commission (Postal) and a new Public Service Department of Posts and Telecommunications, shortly afterwards renamed the Department of Communications (DoC). At this stage, and associated with the deregulation in telecommunication, the issue of receiving licences was discontinued, presumably recouped from the television and broadcast stations.

Interference

The investigation of broadcast and television reception problems was continued by radio inspectors of the new Department of Communications. Interference to these services would be caused by many sources.... power lines, domestic appliances, faulty street lights, neighbour's TV sets and many others. A number of complaints however proved to be faulty receivers. Convincing a complainant that the inspector was not going to 'get' the next door neighbour for him was a part of the job!

The inspectors had extensive expertise in locating and suppressing the sources of interference. They were able to negotiate with power line authorities and electronic service organisations to assist these persons to understand and cure the interference. Often, with the owner's permission, filters, traps, and other devices would be attached to equipment as a means of demonstration and later installation.

Interference from amateur stations was not a great problem. It was a simple matter of loaning a Departmental receiver to the complainant for a short while and arranging tests with the amateur. Sometimes the inspector became a field psychologist in obtaining a reasonably friendly result, given the complainant was so strongly convinced his source of problems was the structure he could see over the back fence. Sometimes new friendships grew out of the situation.

Some amateurs had, at times, excessive harmonic output. It was necessary to restrict on-air operation on specific frequencies until harmonic levels were reduced, a situation most amateurs would have picked up, particularly when they interfered with their family receivers!

Marine inspections

For many years, PMG/DOC radio inspectors, acting on behalf of the Department of Transport (or whatever name was current) conducted regular inspections of all high seas cargo and passenger vessels, for compliance with the Australian Navigation Act and the International Convention for Safety of Life at Sea, as well as relevant British, International Telecommunications Union, and other similar legislation.

On the Australian coast, the inspectors made inspections quarterly, and annually. A 'Survey' of the total radio facilities was conducted, upon which the Department of Transport would issue a further 'Safety Certificate' valid for the next 12 months. Without this certificate, the Customs Branch would not 'clear' a vessel for departure to another port.

This annual 'Survey' took considerable time, requiring not only equipment specification measurements, but a complete stock-take of all spare parts for transmitting and receiving equipment, antennas, batteries, lifeboat equipment and so on. A check to ensure all documents and handbooks were up to date, was also carried out.

This Marine activity took on a special importance during World War 2, when all radio receivers owned by the general crew were tested for local oscillator radiation. Enemy submarines and raiders would be able to hear such radiation at a reasonable distance and identify the location of the ship or fleet.

There were also a number of receivers from that period using the tuned radio frequency technique, where the regenerative detector was sometimes the source of high level radiation.

Where did the Radio Inspectors come from?

Inspectors were recruited from many different organisations. Whilst some were trained within the Department, with internal and institutional qualifications, the majority were from other organisations, where they had been communications engineers, technical officers, draftsmen, marine radio operators, broadcast engineers, police and defence force members. A considerable number were experienced in Antarctic and aeronautical communications and had expertise which was most helpful in dealing with the problems associated with service to a broad range of spectrum users.

Amateur radio was a hobby with many inspectors, most being members of their local radio clubs, and some were executive members of the Wireless Institute of Australia.

Where did they go?

There are now fewer of them. Some are left in Brisbane, Canberra and Melbourne, equipped with portable test equipment, to search out problems Australia-wide. There are none in Adelaide and Perth.

The chance of encountering a radio inspector, be it in a helpful or investigatory way, is now somewhat reduced. While they existed, it was believed they served amateur radio and the Wireless Institute of Australia in a most efficient and friendly manner.

Note 1: 'From Semaphore to Satellite' ITU Geneva 1965.

Note 2: 'A History of Radio in South Australia 1897-1977' J F Ross 1978.

The Blue Mountains Amateur Radio Club invite you to

Winterfest 2010

Sunday 22nd August

What is Winterfest?

An opportunity to pick up a bargain - new or preloved - and a chance to learn a few new things about amateur radio.

An annual fundraising event to support the Blue Mountains Amateur Radio Club.

Where?

18 Simeon Road, Orchard Hills, right near the M4.

Who will be there?

Action Communications, Amateur Radio Transceiver Centre, Vertex Standard Australia, AMSAT, ARNSW Homebrewers, a flea market, BMARC shop, demonstrations

How much does it cost?

Entry to Winterfest is $5. Children 12 years old and under accompanied by an adult enter free.

Food

Sausage and steak sizzle, soft drinks, and free tea and coffee.

Prize draw

Several prize draws will take place, including a Yaesu FT-290R radio kindly donated by Vertex Standard Australia (http://www.vxstd.com.au/). Check our website for up to date information.

How can I find out more?

Check out the Winterfest website at http://www.bmarc.org

To book a table visit our website or email us at winterfest2010@bmarc.org

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Albury Wodonga Amateur Radio Club

Riverina Field Day

on

Sunday, 25 July, 2010

at

1st Lavington Scout Hall, Mutsch Street, Lavington,

commencing at 10 am.

There will be door prizes, and a raffle.

Entry is $5.00.

ATRC from Sydney, and distributors for Yaesu, Icom and Kenwood, will be attending with their latest equipment. There will be antennas, connectors, cable, and much, much more.

Hot food will be available, with tea and coffee free.

Contact Stafford VK2AST for further information - vk2ast@wia.org.au

Unit living is creating innovative 'stealth' antennas

A hidden 40 metre X beam and other unusual antennas

When the QTH is a unit in a group of nine, where the people who make the body corporate regulations have strange ideas about not polluting the skyline, the amateur operator has to think outside the square.

Ron Holmes VK5VH

My 'Shack in a Briefcase' antenna arose out of this situation some years ago (see AR July 2002). One version of this one metre whip still sits on the filing cabinet in the corner of the shack, tuned on 40 metres. It continues to surprise many contacts when I switch to it from a full half-wave antenna and the signal only drops an S point or two.

Admittedly the half-wave is an end fed wire lying on the tiles, but it has served me well over the years on various bands and is quite invisible. I call it the Roofwire (see AR April 2001).

Wanting to improve on the Roofwire, I realised that I could arrange some wires in the small back yard and over the rear portion of the roof so that they could not be seen from the front.

My first try was a 40 metre loop about 3.5 metres high which was not much better than the Roofwire. I cut this halfway along each side to make a two element beam of the VK2ABQ variety.

There was some improvement over the roof-wire in a NE direction but nothing special. I then thought of making it into an X beam. This is sometimes called 'the poor man's beam' because it has no boom and not as much gain as a normal Yagi.

I had successfully experimented with it many years ago on 20 metres. Of course a beam needs to be rotatable which is no great problem on 20 metres but rather more so on 40, particularly when no tower is permissible. But there are other ways to rotate an antenna, especially an X beam.

The antenna

The sketch of the antenna, and the close up photo of the control box, which is reachable from ground level, give the whole game away. Refer Figure 1 and Photo 1. Supports on the fence line are 45 by 35 mm pine, three metres long, painted to match the fence. They are mounted on the fence 30 cm above ground at the back and 90 cm at the front to lift the elements above the roof line.

They form a square approximately 11 metres each way. Any 'tails' are tied to another support by nylon fishing line or wrapped round the pole out of human reach. I used 45 kg fishing line threaded through a piece of Perspex screwed to the top of each support as pulleys to raise and lower the ends of the elements while trimming.

The Control Box

The on-roof support is PVC pipe about one metre long and 75 mm diameter. It looks like the vent seen on many houses. Inner ends of the four 1/4 wave elements go down inside the pipe, out near the bottom, then through the tiles, and down the brick wall to the control box.

Since the N support is in a peach tree, all is invisible from the front. The coax feedline runs along the ground and round the corner to the shack window. These inner ends of the four quarter-wave elements are connected to simple plugs, refer Photo 1. The four sockets in the little box have the coax connected to the two bottom ones and a 300 pF capacitor across the two top ones.

A Rotatable Dipole

For a start, you have a rotatable dipole with six different positions. Just plug in the two elements you wish to feed to the two bottom sockets and leave the other two hanging.

Two straight dipoles at right-angles to each other would normally be enough but there are four more possibilities using bent dipoles. There could be a thought that a balun after the coax might be advisable. However, since 'balun' means *bal*anced to *un*balanced, its purpose is to adjust a balanced load to an unbalanced feed.

When two wires run just above roof level and another over a metal clothes-line, the dipoles are not a balanced load. I found that the SWR may be improved by swapping connections to different sides of the coax.

If You Make It

If you make something like this under restricted conditions like mine, remember that you cannot just cut some wire to the 'correct' length for the frequency and string them up. When on a roof or close to metal structures their length at the correct resonant point will vary greatly from the norm.

The best idea is to cut them a metre or so longer than the correct length and then trim them until a dip meter at the centre shows roughly the right frequency. At least, that is how I did it.

The transceiver was then used to make final adjustments to the SWR by checking at top and bottom ends of the band. If the SWR is best at the bottom end and worst at the top you need to cut a bit off. If the other way round you need to add a bit on. I always try to make my antennas operate without an ATU if possible.

An X Beam

To use the antenna as an X beam choose the direction you want to work, feed the two 'back legs' by plugging them into the two bottom sockets then plug the two 'front legs'

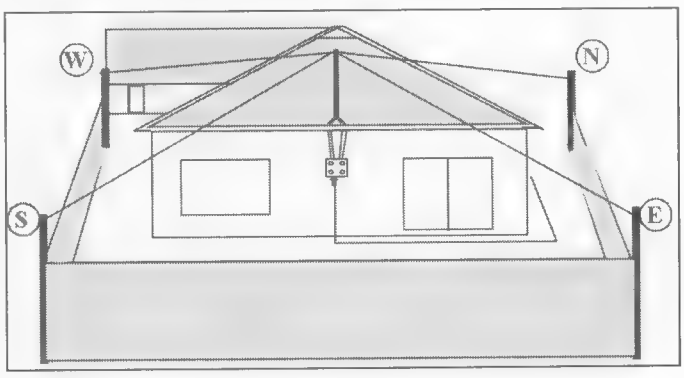


Figure 1: General view of set-up from back of QTH unit.

into the two top sockets. The capacitor reduces the inductance of this front dipole, that is, 'shortens' it, to make it work as a director.

Normally I feed the legs pointing south and west and shorten the legs pointing north and east. This gives me good results into all the eastern states, especially VK4. However the beam is very broad and works down to VK7.

On air tests

With the way 40 metre QSB operates these days, on air tests are difficult, especially if you need a couple of minutes to go outside and change plugs around. So I have a straight change-over switch from the Roofwire to the X beam.

The Roofwire runs along the apex of the roof so bisects the N and W legs of the beam. Thus it radiates in the same direction as the beam when the beam is set up as above. Using the quick change-over switch I get consistent reports from VK 2, VK3 and VK4 that the X beam signal is two to three S points up on the Roofwire. The audio is always clearer.

Other Possibilities

Now I know this antenna as described is not for everyone. If you have a metal roof on your unit you will probably do better to have a vertical with the roof as your ground-plane. But I would like to find someone prepared to try it in a normal size back yard with no 'invisible' restrictions.

With a ten metre high pole at the middle and five metre high points at the corners, plus some kind of remote switching at the top, you would avoid the disadvantage of having the highest current section of your antenna not radiating.

Admittedly Les Moxon in '*HF Antennas for all Locations*', page 82, suggests that the middle section of an X beam is 'relatively ineffective', so perhaps I am not losing as much as I think by having a couple of metres of the four wires going down the tube together. In fact it could even be an advantage in providing coupling between the radiator and director?

On 80 metres

Everyone knows that you can't use a 40 metre dipole on 80 metres unless you feed it with balanced line and tuned feeders or a four to one balun. I discovered by accident that with my very simple home-brew ATU I can get a completely flat SWR on my X Beam.

Normally I use the Roofwire on 80 by end-feeding it against ground via the ATU as it is a 1/4 wavelength on that frequency. You may have noted that I can switch directly between the Roof-wire and the X beam. Recently I thought I was tuning the Roofwire but the switch was to the X beam!

I now feed the N and W legs against the S and E legs and on my two regular 80 metre nets am getting the best results ever! Possibly the fact that it is fed with 24 metres of coax, which is an electrical halfwave on 80, has something to do with it?

Cut and Try

I should admit here that I am strictly a cut and try merchant as far as antennas are concerned. I do not know the maths, and cannot understand half the explanations in the books about how they work.

I know that if I had been more knowledgeable I would probably never have considered building a one metre long antenna and expect it to work on 80 metres. It does, although not quite as effectively as on the ten other bands to which it can be tuned. (That is mainly because of the high noise level on 80 metres).

Nor would I have thought it worthwhile to make an X beam only four metres or less off the ground, which works exceedingly well! My philosophy is if you do the best you can with what you have available, it is surprising sometimes how it turns out.

ar

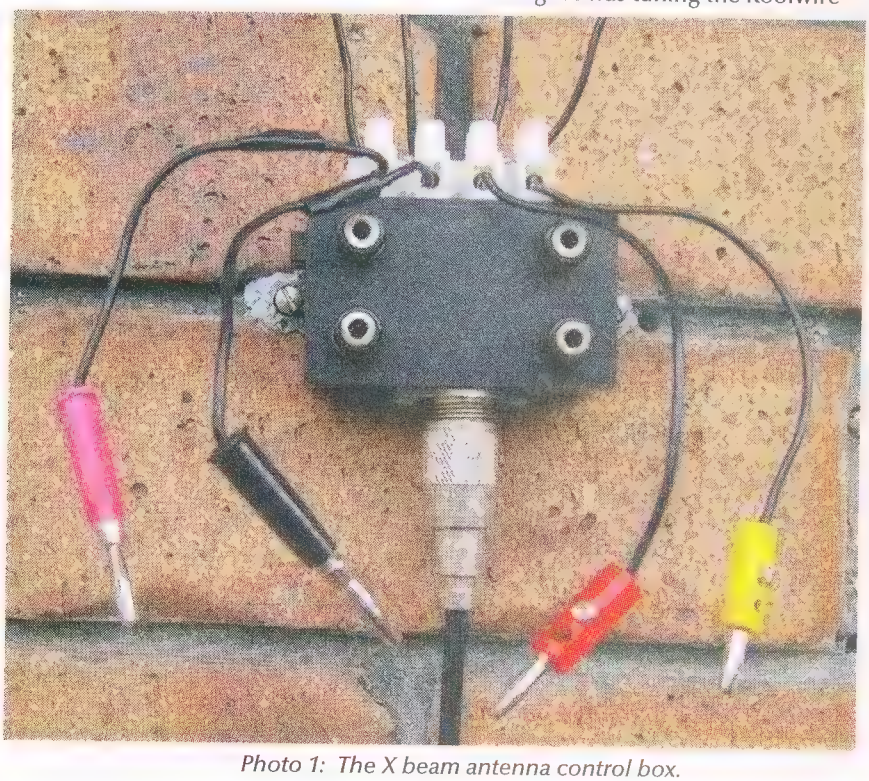


Photo 1: The X beam antenna control box.

Margaret Blight VK3FMAB

35 great years of ALARA

Greetings to all. This edition of the magazine has a particular focus on women in radio. As you recall July is the 35th birthday of ALARA and many of us are looking forward to meeting up with other members at special lunches to celebrate the event. Do enquire from your state committee if you are not sure of the arrangements.

I will also remind you of the ALARA Contest which will be held later this year. Watch out for details in the Newsletter.

A blast from the past

The ALARA column printed in the October 1985 edition of *Amateur Radio* states that "27th July was the day chosen by YLs in four states to meet in celebration of the 10th anniversary of our Association. In VK5, 15 ladies met for lunch in Adelaide. The VK4 lunch in Redcliffe included 15 ladies, six men and several members of the Redcliffe Radio Club who dropped in to say hello." News of the functions held in other states was printed in the November edition. "1985 is ALARA's 10th birthday year and there have been get-togethers to celebrate the occasion in VK2, VK3, VK4, VK5 and VK6. Nineteen members attended the VK3 festivities. They all enjoyed themselves so much that they plan to repeat the performance annually."

Let us hope we can continue the enthusiasm and do even better this year.

The early years of ALARA – Women in radio

Norma O'Hare VK2YL was a speaker at the WIA Centenary AGM in Canberra in May 2010. Her presentation covered the background to the formation of the women's amateur radio operators group now known as ALARA. She pointed out that while ALARA has been in existence for 35 years, women have been involved in amateur radio for years prior to the formation of ALARA.

In outlining some of the history, attention was drawn to such notable operators as Florence McKenzie. The first YL member of the WIA in NSW, Florence was a qualified electrical engineer who gained her licence in 1922. Her interest in Morse code led to her setting up a Morse Code Training School where she taught thousands of men and women.

Mavis Stafford VK3KS.

Other YLs listed in the early Call Books included a mother and daughter, Elizabeth VK3HM licensed in 1927 and Marjorie VK3HQ licensed in 1930. Austine VK3YL also gained her amateur licence in 1930, her love of Morse code led to her teaching it through the WIA. During the Second World War she worked with the RAAF in the Wireless Reserve, the first woman to do so. Austine eventually became one of the inaugural members of ALARA.

Another respected foundation and still active ALARA member is Mavis VK3KS who gained her licence in 1939. She is well known internationally having gained numerous DX and contest awards. In 1983 Mavis was made an honorary life member of ALARA and in 2009 there was a special celebration held by ALARA members to honour her 70 years as a licensed radio operator.

Some other earlier listed YLs were Dorothy VK4DH licensed in 1929, plus Ida VK4JH and MadelineVK4YL who

Norma O'Hare VK2YL wth her girls.

HISTORY OF THE
AUSTRALIAN LADIES' AMATEUR RADIO ASSOCIATION
by Mavis Stafford [illegible]

The Beginning

It was in 197[illegible] that the idea of an organisation to promote and extend the interest of women in amateur radio was conceived by Norma [illegible] VK3AVJ. [illegible] year, Norma, whose previous experience at radio gatherings had too often been one of finding herself the odd one out (the YL with the Amateur Radio interest), had informal discussions with other women who were either licensed amateurs themselves or were the wives or acquaintances of amateurs.

Aims of the proposed organisation as first envisaged by Norma crystallised as follows:

(1) To encourage women to become interested in amateur radio, by making amateur radio a social hobby for the whole family.

(2) It was to be a club for women interested in joining in radio activities, either on their own or with their husbands or friends.

Foxhunts and car rallies were high on the list of projected family activities.

It appears that the title, "Ladies' Amateur Radio Association", was very early decided upon.

Norma now set about communicating the aims to the small group of licensed lady operators of the day, and to the wives and female friends of many OMs. Many many letters, accompanied by questionnaires, were penned and posted at Norma's expense. A reading will to all Australian YL operators was published, as a letter above the names of Norma Boyle, Rhonda de Stefani, Irene Robinson and Jenny Roper in the Correspondence column of August 1975 'Amateur Radio' magazine [illegible] Victorian Sunday morning WIA broadcasts soon carried details of the proposal. Notes were sent to other Divisions, and through the agency of Myrna, VK5YW, publicity was given on the VK5 Broadcast.

Lads were invited to 'park into' the proposed nets, one on VHF and the other on 80 metres, the first nets, on 146.0 Mhz and 3.595 Mhz were held on the evening of Monday, 21st July 197[illegible]. Those checking in on 80 metres or this novel enterprise were:
Norma Boyle, VK3AYL, acting as control, Myrna Haynie VK5YW, Mavis Stafford VK3AKS, [illegible] Earl Tatum, Heather Pike VK2MO, Linda Lumsden VK3YV, Joan Hollier YF [illegible] VK3ARA, Judy Gullett, daughter of VK3AWM, VK3 representing Rona his XYL VK3LY, and VK6ML. The name of the VK present at the latter station is not recorded [illegible] on the 2-F net were Norma VK3AFL, Rhonda de Stefani VK3ZYL, Irene Robinson YL of VK3YLS, and Jenny Roper YL of VK3FF

An early newsletter.

both gained their call signs in 1933. Madeline at the age of 12 years became the youngest radio amateur in the British Empire at the time.

The first licensed YL in South Australia was Betty VK5YL who was licensed in 1936 and also gained her Commercial Operator's Certificate.

Vicki, a telegrapher during the War, became VK6YL in 1936. Bobby VK6MH and Joy VK7YL were also licensed in 1936. Joy VK7YL welcomed ALARA members to the ALARAMEET held in 2008 in Ulverstone, Tasmania on her 93rd birthday.

After the War years a number of women operators could be heard on the airwaves and more became licensed in the 50s and 60s. Their reasons for entering the hobby were many and varied, from a fascination with electronics to a desire to maintain communication with distant family members. Yet others enjoyed the challenge of contesting, chasing DX or communicating with friends.

Norma recalled a Western Suburbs Radio Club picnic she attended where she met up with another female operator Rhonda VK3ZYL. They discussed the possibility of forming a group to encourage women to participate in amateur radio.

Together with a small group of interested women operators they contacted all the known licensed YLs in Australia and sent news items to WIA broadcasts, published letters in AR magazine and started nets on 2 metres in Melbourne and also on 80 m.

The first 80 m net was held on 21 July 1975. The response was an overwhelming success, with YLs both licensed and some acting as second operators calling in from Victoria, South Australia, NSW, Queensland and Tasmania.

Myrna VK5YW soon became net controller as her signal could be heard all over Australia. On 26 July, 1975, the first person-to-person meeting was held at an operator's home in Reservoir. Norma VK2YL was elected President and the name LARA – Ladies Amateur Radio Association was decided upon.

A number of publicity events to radio clubs and hamfests as well as other activities were planned. Subsequent meetings in 1975 were held in the WIA Victorian Division Rooms in Fitzroy. It was then decided to make these meetings more informal and incorporate a social activity where male partners could also participate. This was what made LARA different.

Initially LARA was basically a Victorian group with co-ordinators in the other states. A national group was proposed with nominated office bearers; however, affiliation with the WIA had to occur on a state basis as, at the time, groups could not join the WIA on a federal level.

In June 1978, a motion was made by Mavis VK3BIR to change the group's name to ALARA – Australian Ladies Amateur Radio Association. With this name a national organization was emerging and the first ALARA net took place on 12 June 1978.

Early LARA logo suggestions.

At the final 'in person meeting' held on 3 October 1981, a new constitution was discussed and a committee elected to govern the national body. Geraldine VK2NQI flew to Melbourne to be at this historic meeting where she was elected President of ALARA. Meetings were now to be conducted solely on air. The Constitution was agreed upon on the 1982 birthday net where 22 women members reported in. ALARA became officially affiliated with the WIA in 1985 and in 1995 became an incorporated body.

The first LARA newsletter was published in March 1976. Dot VK2DB has been editor for 20 years producing a high quality computerised newsletter. The ALARA Award came into being in 1979. The first certificates were beautifully designed by Heather VK3AZU with Gothic lettering and displaying each State's wildflower. As colour printing was costly, she personally hand painted each award. The award has since been reprinted but is still based on the original design. The ALARA badge symbol finally emerged after the name change with the final shape of Australia with the attached boomerang being agreed upon.

All members are now united by the quarterly newsletter, the Monday night 80 m net, the annual Contest, the ALARA Award, Birthday and other social luncheons and the ALARAMEET. The first MEET was proposed and organized by Marilyn VK3DMS and was held in Mildura in 1984. Since this time ALARAMEETS have been held every three years across all states of Australia. These are great opportunities for all members to meet including a number of YLs coming from overseas. They also provide for both men and women to participate in events together.

YL
ALARA
ALARA AWARD
The Australian Ladies' Amateur Radio Association Inc.
is pleased to certify that
Pamela Benner VK4FABB
has submitted satisfactory evidence of having conducted two-way communications with members of ALARA in accordance with the rules of the awards committee.
Awards Custodian..
President
Award number X001
Date of Issue 25 January 2007

Since its simple beginnings as a club for women interested in participating in radio activities, ALARA has continued to grow. Right from the start LARA was accepted internationally with a number of DX ladies joining. The first official overseas members were Pearl ZL2QY and Dianna G4EZI. International membership has continued to be high and Australia will host the 2012 International YL Meet in South Australia.

Travelling tales

Jenny Wardrop VK5ANW

From 6 to 21 May 2010, Jenny VK5ANW and Peter VK3RV along with Pam VK3NK and Graeme VK3NE were part of a group of 30 members of the Cinema and Theatre Historical Society (CATHS) who toured the North Island of New Zealand. The group travelled in three mini buses, and all three drivers were licensed amateurs which made for easier co-ordination of the buses! (There were six amateurs in the group).

One of the 'unofficial highlights' of the trip was catching up with Jenny's WARO sponsor, Cathy ZL2ADK and her OM Brian ZL2ADL; also Ngaire ZL2UJT and her OM Graeme ZL2APV. Cathy and Brian have attended several ALARA Meets, including Brisbane, Mildura and Ulverstone and Ngaire also attended the Mildura Meet.

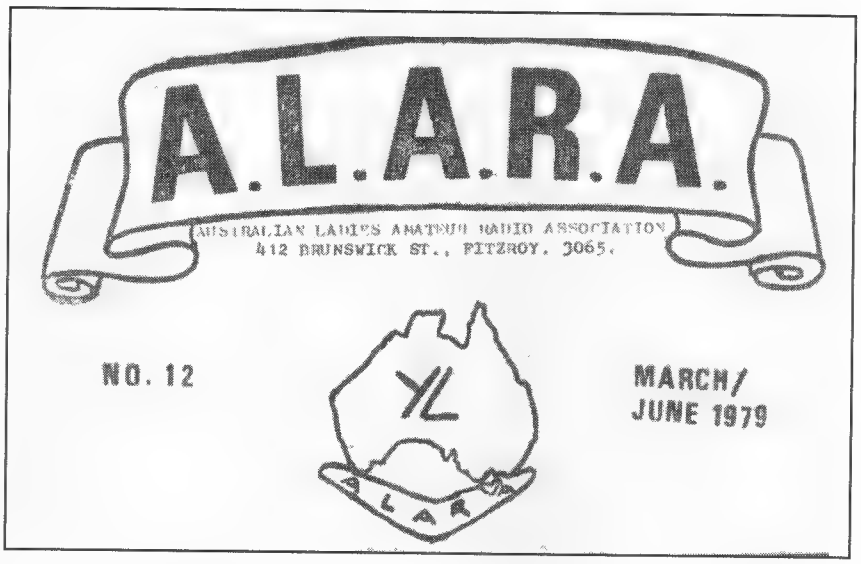
On Wednesday 12 May, all met for dinner in Palmerston North and spent a great, but all too short, evening together. They all hope to meet again in Adelaide in 2012 at the International YL Meet.

In Auckland, Jenny heard Rosemary ZL1RO and Alison ZL1TXQ on the local repeater and had a contact with them. Both have attended ALARA Meets in the past. Afterwards, a quick phone call was made to Celia ZL1ALK as it had not been possible to catch up with her in person.

So what started out as a tour of Cinemas and Theatres, ended with several YL contacts being made and friendships renewed.

Ngaire ZL2UJT, Cathy ZL2ADK, Jenny VK5ANW, Pam VK3NK.

From those early days some 35 years ago, when the idea was suggested that more YL participation should be encouraged in amateur radio activities, a sophisticated worldwide organization has emerged. ALARA members are regularly represented at most field days, conventions and hamfests and can be easily recognized by their yellow and black banner. Since the introduction of the Foundation Licence, many women, particularly a number of young girls, are now learning electrical theory, safety skills and communication techniques to gain their amateur radio licences. This not only allows them to enter a wonderful hobby but gives them knowledge which will be useful to them throughout their lives. The future of women in amateur radio seems assured.



An early newsletter header.

The First State of ALARA

Christine Taylor VK5CTY

There has been a VKnYL in each State almost since the beginning of YL licensees.

Denise held the callsign VK1YL for a short time in the early 1950s but was rarely active except to contact her OM David. She later became VK5YL.

The first serious VK1YL was a Sue who was licensed while at school. Her father had been a radio op during WW II so she had grown up with radio. She held her licence for a number of years and had many contacts. VK1YL was a desirable callsign to have in your log! The licence lapsed when she took up medical studies. She is listed in 1977. Marion, a Canberra scientist, is now VK1YL.

We have only a name for the first VK2YL, as a Miss L N Litchfield, listed in the 1938 Callbook. The callsign is currently held by Norma, who was the first President of ALARA in 1975 when she held the callsign VK3ALY.

The first VK3YL was Austine who gained her licence, listed in 1938. She won awards for her home built equipment in a number of competitions. Austine held her licence for over 40 years and was an early member of ALARA. The current holder of VK3YL is in Sydney.

The first VK4YL was Madeline McKenzie,(see story page 5) who gained her licence as a 12 year old. She won a number of prestigious awards in the British Empire Radio Union contests before the war. She allowed her licence to lapse when her equipment was confiscated at the beginning of the war and she never resumed the hobby. She was about in 1984. There is a current holder.

There have been three VK5YLs. Betty obtained her licence as an 18-year-old before the war and was later employed as a technician in one of Adelaide's leading electronic stores. She did not take up her amateur licence after the war.

The second VK5YL was Denise, who was for a short time VK1YL when the call was allotted to her while she was in Canberra. After she and her family had spent a couple of years in the US they returned to VK5, the home state of Denise and her OM. Denise held her callsign till she became an SK. The following text is part of the obituary Meg VK5YG wrote for *AR:*

"Denise the first VK1YL then VK5YL, and an early member of the Australian Ladies' Amateur Radio Association will be remembered by amateurs for her enthusiasm for our hobby and her proficiency as an operator. She also encouraged newcomers to amateur radio by giving them CW practice sessions, taking part in community events to promote amateur radio and by her enthusiasm for her hobby. In her pre-licence days she learnt Morse code so that when her husband David VK5RN was overseas, she could receive messages from him."

Denise was an early member of ALARA and helped many aspiring amateurs to pass their CW exams.

The current holder of VK5YL is Shirley, a very enthusiastic amateur and an active member of ALARA.

The first VK6YL was Vicky who got her licence before the war and took it up again after. She was a well-known and respected amateur in her active years. She gave ALARA her encouragement when it began in 1975. The callsign is held by Gill these days. Gill has been active in ALARA but is not so active nowadays.

Like Austine, Betty and Vicky, Joy, the holder of VK7YL, obtained her licence under her maiden name and changed it when she married. Joy was active for a short time before the war and continued to be active afterwards. Joy spoke to the ALARAMEET in Tasmania two years ago by video. She is no longer active but has retained her callsign and her amateur friends.

100 YEARS

Centenary Year AGM and Convention Canberra 28-30 May

The WIA held its Centenary Year Annual General Meeting and Convention in Canberra over the weekend of May 28-30. The action packed weekend saw the AGM wrapped up, the first contacts from VK100WIA, an open forum which discussed many matters, an ARISS contact, tours of the Black Mountain Tower, formal dinners, informal conviviality, awards awarded, a life membership endowed, a guided tour of the fabulous property of our Centenary patron Dick Smith VK2DIK and to top it all off, the Army literally dropped out of the sky unexpectedly to add to the excitement.

Annual General Meeting/Open Forum

The statutory Annual General Meeting was attended by 152 WIA members and commenced just after 9 am on Saturday, 29 May, 2010, at Rydges Lakeside Hotel, Canberra.

As is the tradition, one minute of silence was observed for the 97 amateurs who became Silent Keys in the previous year, 55 of whom were WIA members.

Then the Annual Financial Statements, Directors Report and Independent Audit Report for the previous financial year were adopted.

The Chairman, Michael Owen VK3KI announced the previously published result of the call for nominations of Director.

An additional item of business was put by the Chairman, namely the approval of the WIA Board's nomination of Fred Swainston VK3DAC as an Honorary Life Member. The nomination was approved unanimously and the formal meeting was closed.

The Open Forum was then begun and a number of awards were presented (see the separate panel for details of the awards).

Then IARU President Timothy Ellam VE6SH presented a brief report on amateur radio, its challenges globally and in Region 2. Executive Committee Member from IARU Region 1, Panyot Danev LZ1US reported on Region 1, and IARU Region 3 Director Shizuo Endo gave a report on Region 3.

The Open Forum, introduced in 2005, separates the statutory Annual General Meeting from a much more informal discussion of all aspects of the WIA, based on reports from the many people responsible for different activities, as well as a completely up to date report from the Directors.

Fred Swainston VK3DAC (l) receiving congratuations on his Life Membership from WIA President Michel Owen VK3KI.

An innovation this year was the posting of the book of reports to everyone who had registered to attend the AGM/Open Forum. This was to enable everyone to read the reports in advance, and to avoid the sometimes long presentations that have occurred in the past.

This year the Chairman identified the major point of each report, and any issues raised in the report.

The President's report was supplemented by a report on the action taken by the ACMA to cancel an amateur licence, announced only the day before the AGM.

That caused quite some discussion, with a number of members questioning why the identity of the radio amateur could not be disclosed. The President explained that as cancellation was an administrative action, not a prosecution in open court, the ACMA believed that the privacy legislation required them not to disclose that information.

Many members spoke briefly on many topics as the reports highlighted the work of those responsible for awards, the bookshop, BPL, club liaison, contests (though, sadly, a number of important contest managers did not submit reports), ITU representation, repeaters, the WIA webmaster, ARISS ARDF, emergency communication, the broadcasts and publications.

Centenary Year AGM and Convention

Canberra 28-30 May

Many constructive suggestions were made, and many also acknowledged the contribution of those who had submitted reports.

The afternoon program

The afternoon was devoted to a program examining the history of wireless and the WIA, with a variety of presenters, who had devoted significant time to researching their topics and used a variety of presentation methods.

The program was brought together and introduced by Peter Wolfenden VK3RV.

The Centenary Dinner

In the evening, over 200 people attended the WIA Centenary dinner.

Features of the dinner were the ARISS contact with the students from Trinity Christian School, the address by the Chairman of the ACMA, Chris Chapman, and the talk by Dick Smith VK3DIK (each of these is the subject of a separate story).

During the evening, Takashi Aoki VK3NON, Manager of ICOM Australia made a presentation to Peter Westerhof VK1NPW, the Canberra Region Amateur Radio Club President of a new D-STAR Repeater for Canberra, to be owned by the WIA and operated by the club as a D-STAR club.

Mr Aoki also presented the WIA with a plaque from Tokuzo Inoue JA3FA, the founder of ICOM.

A number of presentations were made. While not directly represented, the Radio Society of Great Britain, through IARU President Tim Ellam VE6SH, presented a magnificent tray. In his letter, RSGB General Manager Peter Kirby G0TWW extended the congratulations of the President Board and members of the Society, and went on to say, "This wonderful achievement would not have been reached without the outstanding commitment of the many thousands of volunteers who have worked tirelessly for the WIA over the past 100 years. They are to be congratulated."

Other gifts were presented by NZART President Roy Symon ZL2KH, Keigo Komuro JA1KAB and Isamu Kobayashi JA0AD on behalf of JARL, Jay Bellows K0QB, International Affairs Vice President on behalf of the ARRL, Gopal Madhavan VU2GMN President of the Amateur Radio Society of India, ARSI, Region 3 Director Professor Joong-Guen. Rhee HL1AQQ on behalf of KARL, Panyot Danev LZ1US Executive Committee Member on behalf of IARU Region 1, the Directors of IARU Region 3 and the IARU represented by President, Timothy Ellam VE6SH.

A number of other societies had sent their best wishes and these appear on the WIA website.

A further presentation was made to the WIA. Marilyn Syme VK3DMS has for many years put together a thematic collection of stamps related to telecommunications, and she presented that collection to the WIA.

Marilyn said the collection, which had won a gold award at a major stamp show, will now be in the care of the WIA for future generations to enjoy.

The WIA President, in accepting the gift, said that it was a very moving gesture, and promised that the collection would be looked after with great care.

It is proposed that an article providing more detail about the collection will appear in a future edition of *Amateur Radio* magazine.

Marilyn VK3DMS.

In his closing comments the WIA President Michael VK3KI said that the theme that had emerged for him from the history of wireless in this country is that the reasons for the existance of the WIA today are as relevant as 100 years ago, although from being the voice of the experimenter, it has become the voice of the amateur service.

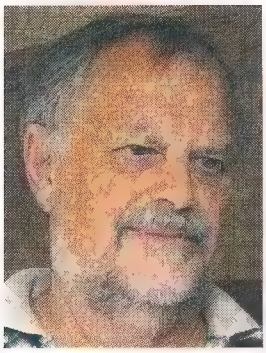
ar

Takashi Aoki, Icom; Robert Hare, Icom; Michael Owen VK3KI and Peter Westerhof VK1NPW.

Awards announced at WIA AGM & Open Forum

New Honorary Life Member

Since 2005 Fred Swainston VK3DAC has made an enormous and enduring contribution through the development and roll out of the new assessment based system enabling individuals to qualify for amateur certificates of proficiency and licences.



At the WIA's AGM on 29 May, WIA President Michael Owen VK3KI announced that the Board would nominate Fred VK3DAC as an Honorary Life Member.

Fred had acted as the WIA's Registered Training Organisation, the WIA's examination system that includes training of assessors for the required nationally recognised qualification and accreditation.

Michael VK3KI said the Board recognised the extent of this voluntary contribution and his independence that gave the system credibility. The nomination was approved unanimously and with applause.

A humble and surprised Fred VK3DAC spoke briefly after being presented his Life Membership certificate and badge.

G A Taylor Medallion

The G A Taylor Medallion was awarded to Ron Fisher VK3OM in recognition of a half a century of voluntary service to the Wireless Institute of Australia mainly associated with the WIA journal *Amateur Radio* magazine.

The Medallion is conferred by the Board irregularly and rarely, in acknowledgment of exceptional voluntary service to the WIA.

Ron Fisher VK3OM left, receiving the GA Taylor medallion from David Wardlaw VK3ADW. Ron was not able to be present at the WIA AGM and David agreed to pass on the medallion on behalf of the WIA.

The first of Ron's dozens of articles appeared in the September 1955 issue of the magazine. Three more of his contributions were published before he joined the *Amateur Radio* Publications Committee in 1960.

From then, until his resignation in 2009, he remained a member of the Publications Committee, an unbroken service to the WIA's magazine of nearly 50 years, considerably more than anyone else.

Rarely missing an issue, Ron wrote the 'Commercial Kinks' column for *Amateur Radio* from 1972 through to 1981. He also wrote innumerable comprehensive 'Equipment Reviews' from 1973 until 2010. He wrote many other columns and articles.

Ron worked one day a week as a volunteer in the Federal Office from 1988 to 1996, including keying-in an index of *Amateur Radio* from 1968 to 1996.

Ron was the technician and co-presenter, in conjunction with Bill Roper VK3BR, of the 'Federal Tapes' segment of Federal WIA news which appeared in the WIA Divisions' weekly broadcasts for 17 years from 1972 until 1989.

Chris Jones Award

WIA President Michael Owen VK3KI announced that the Board had decided to present the Chris Jones Award to Robert Broomhead VK3DN.

The Chris Jones Award is inscribed "The Chris Jones Award honours the memory of a man who was dedicated to the advancement of amateur radio and whose unfailing commitment and vision led to a new Wireless Institute of Australia ... It is awarded to radio amateurs who have made an exceptional contribution to amateur radio and

Robert Broomhead VK3DN being presented with the Chris Jones Award by WIA President Michael Owen VK3KI.

the Wireless Institute of Australia."

Robert VK3DN had served as a WIA director from November 2004 until December 2009, and was responsible for the new corporate look of the Institute through printed materials and the website. He also managed the WIA AGM Member Open Forum weekends since Parkes in 2007.

The announcement was greeted with applause.

In presenting Robert with the Award, the President said that he knew that the award would have a special meaning for Robert, as he had much to do with Chris Jones VK2ZDD–SK.

Other important awards

The Higginbotham Award
presented to Peter Wolfenden VK3RV, in recognition of his outstanding contribution to amateur radio and the WIA in developing a history of wireless in Australia for publication in the WIA Centenary year.

The Ron Wilkinson Achievement Award
went to Adam Maurer VK4CP for the development of the VK Logger, an interactive online forum that covers general topics, band specific discussion for HF, VHF, UHF and Microwave, special modes and propagation observations.

Publications Committee awards

The *"Amateur Radio"* Technical Award
for the best technical article published in *Amateur Radio* in 2009 was presented to Dale Hughes VK1DSH for his article "A phasing type transceiver for 144 MHz, parts 1 and 2" published in August and September 2009.

The *Al Shawsmith* Award
for the best non-technical article published in *Amateur Radio* in 2009 was awarded to Rex Moncur VK7MO and Justin Giles-Clark VK7TW for their article "Echoes of Apollo – EME on three milliwatts" published in August 2009.

President's Commendations
Fishers Ghost Amateur Radio Club in recognition of its contribution to amateur radio by its participation in the 22nd Australian Scout Jamboree in Sydney 2010.

Karl Hennig VK6XW for his contribution of many years as WIA Intruder Watch Coordinator and as an International Monitoring System Observer.

John Kirk VK4TJ for his contribution as an International Monitoring System Observer for many years.

Ham College in Perth for its service in providing teaching and assessment facilities for amateur radio in Western Australia.

Dennis Muldownie VK6KAD for providing rebroadcasts of the WIA News and compiling and presenting news from Western Australia. **ar**

Saturday Afternoon

The Saturday afternoon program took an historical bent as befits a Centenary convention.

Peter Wolfenden VK3RV, the organiser, set the scene. Deane Blackman VK3TX looked at 1914, Peter Freeman VK3PF charted VHF, UHF & Microwave bands in Australia, and Phil Wait VK2ASD (centre photo) highlighted some radio amateurs who have changed history.

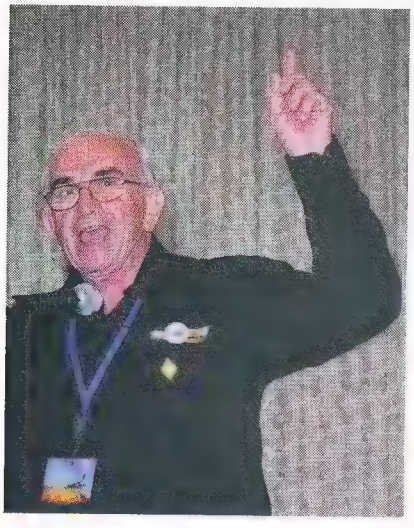
Drew Diamond VK3XU examined experimental methods in home construction, and Tony Hutchison VK5ZAI discussed amateur radio & manned space flight, then and now.

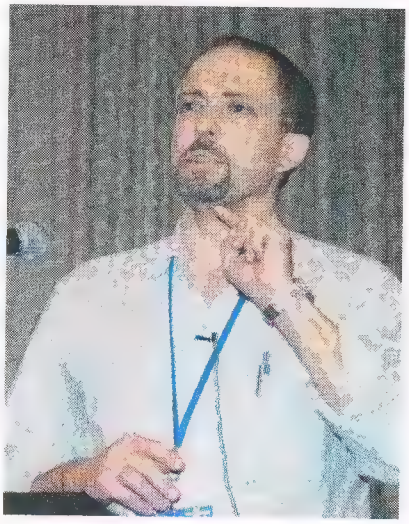
Norma Boyle VK2YL outlined the early years of ALARA - Ladies in amateur radio (see earlier article).

Then Graham Kemp VK4BB passionately (left photo) postulated that radio 'Always has been – Always will be, The Cat's Whisker'

Peter Wolfenden VK3RV screened some historical amateur radio films.

Justin Giles-Clark VK7TW (right photo) returned the group to the present by speaking on modern communication technologies. **ar**





ACMA praises WIA on its Centenary

Australian Communications and Media Authority Chairman Chris Chapman has given strong recognition to the 100 years of service provided by the Wireless Institute of Australia to the amateur radio community.

Speaking at the WIA Centenary Dinner, Mr Chapman commented that it was not often anyone gets to talk at a centenary celebration, let alone one covering almost the entire history of the use of the radio frequency spectrum in Australia.

Adding a personal element, he spoke with pride that his great grandfather, Sir Austin Chapman, a member of Australia's first government in 1901, was the Postmaster General 1905-07.

Mr Chapman said, "From its fledgling origins 100 years ago, where a few inquisitive and talented individuals experimented with the transmission of wireless signals over a few hundred yards ... amateur radio has truly spread its spectrum wings and has been at the cutting edge."

"An amateur with an Advanced Licence is authorised to access approximately 23 GHz of spectrum across 24 separate spectrum bands, ranging from 136 kHz up to 250 GHz, some of which I understand might be presently difficult and expensive, if not even impossible.

"Nevertheless this degree of access probably arises from a worldwide long-standing acceptance that the amateur community may be relied on, to not only use the spectrum responsibly, but also be involved in the development of new ways to use the spectrum," he said.

"It is really pleasing to note that the amateur use of the spectrum is just not confined to serious development projects and the investigation of technical issues, there seems to be some fun too, foxhunts, direction finding contests and the like."

He acknowledged that there was a wide variety of amateur radio activities including the transmitting of television signals, bouncing signals off the moon and communication with those travelling in space.

A self-confessed non-technical person, Mr Chapman commented, "a hundred years ago much of the equipment used was necessarily built by the experimenters themselves."

"Now, looking at some of the photographs on the WIA website and the recent editions of *Amateur Radio* touching of on much of the WIA's 100 year history, some of it looked downright dangerous."

While many of today's radio amateurs still build their own equipment, equally very sophisticated and safe equipment is readily available.

He referred to "an ongoing transformation program" for the ACMA which aims to have the radio administration in Australia be more "flexible, agile and adaptive so as to effectively address a communications environment of constant change".

"The ACMA had a role in helping maintain the nation's economic competitiveness, truly making communications, including amateur communications, work in Australia's public and national interest."

Mr Chapman said, "Making amateur communications work well, involves having a good working relationship with its stakeholders; in the case of the amateurs, mostly through excellent representation by the WIA."

He referred to the changes made at the World Radiocommunication Conference in 2003 that included an end to the mandatory Morse code requirement for amateur licences, and the Australian Communications Authority's review of the amateur service regulation. That was followed by a new amateur certification and licensing arrangement.

Mr Chapman said, "The success of those new arrangements is a testimony to the significant ongoing contribution of the WIA."

"Initially this contribution included the shaping of the nature of the new entry level Foundation Licence, developing syllabi for the three qualification levels, and providing input to the extensive revision of the legislative instruments that regulate amateur operation."

"In an on-going sense, the WIA's professional approach to its activities has consolidated the gains made by the introduction of the new licensing arrangements."

In addition to the WIA's long held roles of training and examination of candidates, under a ground-breaking Deed of Agreement with the ACMA, the WIA now manages the issue of amateur certificates of proficiency, and the issue of callsigns, on behalf of the ACMA.

There are 15,000 amateurs authorised in Australia, he noted, adding "And that this number is steadily increasing, is I suspect mostly due to the indefatigable efforts of the WIA." Mr Chapman said, "I also know that the WIA activities don't stop there."

Australian Communications and Media Authority Chairman, Chris Chapman.

Centenary Year AGM and Convention

Canberra 28-30 May

Through its magazine *Amateur Radio*, its regular broadcasts and information, and its affiliated clubs, "the WIA continues to encourage interest in the pleasures and sciences of radio communications".

"Now all this just does not happen. It takes an enormous effort by large groups of people. Volunteers in clubs across the country who run training courses and conduct the examinations, volunteers who put the broadcasts together and contribute to the magazine, and volunteers who, through JOTA, assist scouts and guides to experience the wonder of amateur radio."

"Additionally I know many amateurs provide communications' expertise to the community in times of emergency, through WICEN".

"Grassroot Australians, one to the other - reflective of the finest manifestations of the concept of 'citizen'," said the ACMA Chairman to the WIA Centenary dinner attended by 200 people including international guests representing the IARU and overseas national radio societies.

Mr Chapman said, "As the voice of amateur radio in Australia, the WIA's contribution does not stop with making representations to the ACMA. The WIA also represents Australian amateurs to the International Amateur Radio Union, and joins with the ACMA to make representation on the international stage. In particular at the World Radio-communications Conferences".

"So, that is, I have to say, quite some CV [curriculum vitae] the WIA has built up."

The ACMA Chairman was one of a number of ACMA representatives attending the dinner. "On behalf of my colleagues within the ACMA, let me extend our congratulations to the WIA on its achievements over the past 100 years of service to the amateur community in Australia."

"The ACMA looks forward to working with the WIA to make amateur radio in Australia all it can be," said Mr Chapman.

In conclusion, he said the ACMA will watch with interest as the amateur community heeds the recently published caution by the WIA President Michael Owen VK3KI, who stated that the internet could not be treated as a competitor to amateur radio, but can be part of it. **ar**

Jim Linton VK3PC

A look right inside Black Mountain tower

A highlight of the WIA Centenary Convention was a special 'behind the Scenes' tour of the communications tower built 30 years ago that stands 195.2 m above the 812 m summit of Black Mountain, Canberra.

The striking landmark in the nation's capital has 430,000 visitors per year. On Friday 28 May a rare opportunity to have a guided tour of its inner workings was part of the WIA's weekend program.

The 150 WIA members and partners were broken into four groups to explore the non-public areas of the tower with the assistance of expert and knowledgeable Telstra guides.

The tours began with a short film of the construction of what was quite an engineering achievement for its time.

Introducing each viewing, Robert Broomhead VK3DN made particular note that the Telstra Tower was celebrating its 30th anniversary in the same month as the WIA Centenary celebrations, adding to the significance of the tour.

The tower has a number of levels dedicated to television and radio broadcasting, two-way radio services, mobile phone communications, paging, microwave and fibre-optic communications.

The powerful broadcast transmitters had distinctive 'plumbing'; large copper tubing that formed coaxial feedlines to carry signals from each transmitter into combining and filtering hardware to feed the tower's antennas.

The tower is a node in the inter-capital broadband network. Its importance includes the capacity to carry up to five simultaneous interstate television relays as well as national regional relays from Sydney and Melbourne, and originating signals from Canberra.

It has a public observation desk affording a 360 degree panoramic view of Canberra's skyline and the surrounding area. After the tour it was off to the tower's five star Alto Tower Restaurant, Canberra's only revolving restaurant, that rotates at a rate of once every 83 minutes.

At night, external LED flood lighting has it changing colours.

The WIA thanks Telstra, managing agents Raine and Horne and engineers Paul Elliot and Charlie Syms for making the tours possible.

ar

Telstra's Paul Elliot describes a feature of the tower's coverage.

Tower photo courtesy Wikimedia Foundation.

A true blue character - the WIA Centenary Patron Dick Smith VK2DIK

Jim Linton VK3PC

Making a unique contribution to the WIA Centenary celebrations was Dick Smith VK2DIK, aviator, adventurer and entrepreneur. In a speech at the WIA Centenary Dinner, he enthralled the audience while giving an insight into his life and exploits.

Born Richard Harold Smith in 1944 in the Sydney suburb of Roseville, early exposure to amateur radio resulted in it being an integral part of his being.

He lived opposite his grandfather, Harold Cazneaux a famous pictorial photographer, where Dick's Uncle, Harold Cazneaux (Jnr) lived before being killed at 21 at Tobruk, in 1941.

Dick explained that about ten years after Uncle Harold's death he was permitted to occasionally explore his uncle's old radio room, which inspired him to later build a crystal set at the age of eight or nine.

Being unable to afford headphones he recalled using a dynamic microphone instead and heard bagpipes. Dick's parents doubted it, but the reception was confirmed by his sister Barbara.

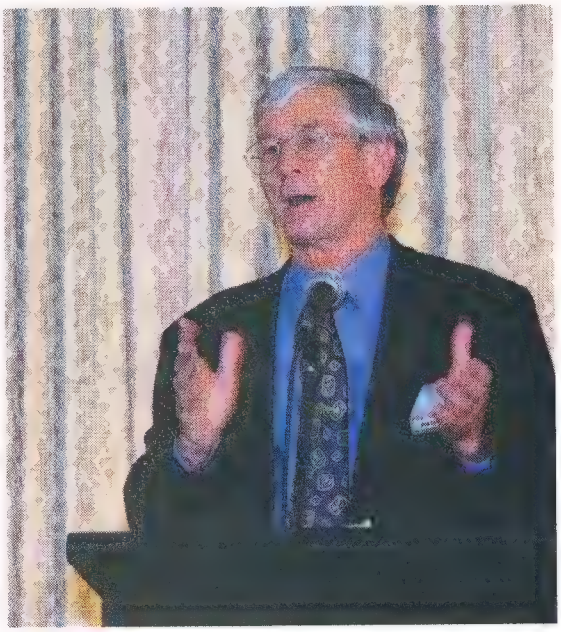
As a young boy with a speech impediment, the other students would laugh at him, leading to an inferiority complex, and he left school at 15 but shortly returned to get his Leaving Certificate.

A crucial career move in 1962 was to join Weston Radio, a company selling and installing two-way radio sets in taxis and the like. Later he heard workmates talking about a new radio on the market involving Findlay Communications, owned by Maurie Findlay, a former Weston Radio employee but now a competitor.

Dick knew of Findlay through his writings in *Radio and Hobbies* magazine; Findlay had been the author of the design of that very first crystal set built by the young Smith. As a 17-year old he telephoned Findlay, talked himself into a job and the pair became lifelong friends.

Another key mentor was Tony Balthasar VK2IH (SK), a shareholder in Findlay Communications, an avid radio amateur and Rover Scout adviser at the 1st East Roseville troop of which Dick was a member.

At the age of 22 he returned from an overseas holiday and went back to Weston Radio as a salesman. Upon learning that the company would no longer repair radios for Manly cabs, Dick saw the chance to get into that business.



Borrowing $6,000 from Tony Balthasar he started Dick Smith Electronics, selling and repairing two-way and car radios. The business at Gore Hill thrived for three years.

Dick reckoned he could do better at customer service than Sydney component wholesalers George Brown and began selling components. He set up at 10 Atchison Street, St Leonards in 1972, two doors from the WIA New South Wales Division headquarters.

Dick and his wife Pip were puzzled by the unexpected departure of staff and found that $50,000 in stock was missing. A salutatory and costly business experience.

While winding up the enterprise, including selling at the counter, he realised that there was money to be made out of components if it was done better. That led to the introduction of self-serve selling.

Dick told of his first Dick Smith Electronics catalogue that went on sale for 50c, and turned a bigger profit than selling electronics. Then he opened the first self-serve electronics centre.

"I would go to open the door on Saturday morning and lined up there would be 50 to 60 people waiting to get in," said Dick. The company then rode the CB radio boom.

Travelling to Hong Kong and Japan he initially imported Icom radios and then had a long association with Yaesu selling its products and setting up the Dick Smith Electronics amateur radio department.

Dick found that having no money for advertising was just another challenge, and came up with zany publicity ideas.

The first was a petrol powered pogo stick he saw in Popular Mechanics. He rang a newspaper and said, "I'm going to import 20,000 so housewives could use them to do their shopping at the supermarket on my pogo stick."

Dick then planned to tow an iceberg from Antarctica. "I originally thought I was going to tow a real iceberg up from Antarctica, cut it up into ice-cubes ... sell them for 10c each and make a million dollars an iceberg."

Those ice-cubes would be so much better than those made from Sydney water. Not at all feasible: yet the media kept asking when it was going to happen.

So in 1978, in one of the top April Fool's Day jokes of all time, he towed a giant fake iceberg into Sydney harbour, with Dick's 160 employees phoning radio stations and the *Sydney Morning Herald* en masse from 5 am to report seeing what looked like an iceberg.

Dick said, "The publicity was enormous and it cost (only) $1,200. The business expanded, we ended up with 50 shops, 500 staff— and I didn't like it anymore and wanted to go adventuring."

Dick Smith Electronics was sold to Woolworths, whose directors asked how Dick was going to celebrate the sale of his company. He responded he was going to jump a double-decker bus over 16 motorbikes.

There was silence and their jaws dropped in disbelief, they probably thought he was going to kill himself. The sale announcement was delayed until after the 'dangerous' stunt, that had Dick as a conductor on the bus driven by adventurer Hans Tholstrup.

"It was going so fast I could not jump up before it reached the launch ramp. It was such a fantastic ride until it hit the ground," said Dick of the jump.

That was Dick's humorous jibe at dare-devil Evel Knievel who had visited Australia in 1979 and jumped his motorcycle over 16 buses.

In concluding his speech, Dick said he was honoured to be involved with the Wireless Institute of Australia, a wonderful organisation, 100 years old.

"I don't get on air very often. But in each of my aircraft (9) I have synthesised radio transceivers and occasionally come up on 14.146 MHz."

Dick generously made available his Bowylie Flying Club at Gundaroo for the WIA Centenary BBQ on Sunday 30 May (see separate story).

In 1983 Smith published a book *The Earth Beneath Me* which described his around-the-world helicopter flight. At the end of the speech an audience member asked: "What's your next adventure?" Dick dismissed it, saying he was too old for such things.

Although not mentioned, it was on the solo helicopter trip that Dick decided he would be a philanthropist supporting worthy causes.

Dick is currently taking a lead in the debate about our nation's population growth, saying he is concerned that government has it headed for 36 million people by 2050, without a plan to show how it could be sustainable.

The WIA Centenary Patron: He founded Dick Smith Electronics, the Australian Geographic and Dick Smith Foods. He was the 1986 Australian of the Year, named as an Australian Living Treasure in 1997 and made an Officer of the Order of Australia in 1999 for service to the aviation industry. **ar**

Sundee arvo barbie at Dick and Pip's Place

Jim Linton VK3PC

The final day of the WIA Centenary Convention, Sunday 30 May at Dick Smith's Bowylie Flying Club located at Gundaroo (north of Canberra) promised to be something special. It far exceeded the expectations of most, including our international guests.

Not only did it provide plenty to see, explore and learn, but the hosts Dick and Pip Smith gave of themselves in the style of traditional country friendliness you would expect from Aussies.

The Bowylie Flying Club is a privately owned aviation museum that contains carefully restored aviation-related memorabilia and display of historic radio equipment. A dream turned into reality for Dick Smith.

Not an actual flying club but a re-creation of what it could have been like back in the 1930s. Period furniture, replica tobacco smoke stains on the ceiling, aircraft design carpet, a bar and behind it a four bed dormitory for pilots needing a rest.

An interesting radio room is set up like that of his Uncle Harold, a radio enthusiast who was killed in World War II. It contains old equipment, books and a display of radio valves that once was a feature piece of a Sydney repair shop.

Next to that is an old workshop and hangar that contains a restored Westland Widgeon - only two of these aircraft dating back to the late 1920s remain, with the other held in a museum. Also in the hangar making its presence loudly obvious is a German street organ that plays marching tunes using a pianola-type paper roll, all adding to the atmosphere.

Dick clearly has a fascination with early Australian aviators and immortalises many of them with the Bowylie Flying Club President's board of honour.

Concludes on page 56 and

The Bowylie Flying Club, pilots lounge, bar and radio room at front, hangar at back. The main landing strip runs away to the right in the foreground.

NASA and ISS crew send centenary greetings

Jim Linton VK3PC

Astronaut Tracy Caldwell-Dyson KF5DBF (right) spoke from space to the WIA Centenary Dinner, just prior to receiving questions from ten students from the Trinity Christian School.

Tracy KF5DBF, the Flight Engineer on her first mission said, "On behalf of the International Space Station crew and NASA, I extend our warm congratulations to the Wireless Institute of Australia on reaching 100 years."

"The WIA began in 1910 at a time when we could not communicate around the world using radio. About a decade later radio amateurs had developed worldwide radio communications."

The room was silent as the Year 12 students stood in readiness for their part in the first Amateur Radio on the International Space Station (ARISS) program school contact in the ACT.

The contact used a telebridge ON4ISS in Belgium (operator Philippe Van Houte, ON5PV). ARISS Asia-Pacific Coordinator, Tony Hutchison VK5ZAI, was at the controls in Canberra.

It was heard by the 200 people at the dinner including international guests, ACMA Chairman Chris Chapman, and Dick Smith VK2DIK.

Tracy KF5DBF concluded her speech by noting, "Among the many other contributions of radio amateurs over the years includes space communications. The first amateur satellite was launched in 1961 just four years after Sputnik 1."

"There are advanced and ambitious plans by AMSAT to send amateur satellites into the orbits of Venus and Mars. All very interesting indeed."

The student session then began; William Shaw, asked: "When you are in space, are you 'above' the law? If a legal issue arose which nation's law would apply?" Tracy did not foresee that there would be a legal problem on the space station and added that there were controls.

Another student, Elizabeth Shen, asked about living in space with zero gravity, its effects on the body and whether there were changes to the normal blood pressure and pulse rate.

Tracy's response was that the crew are constantly monitored, and there are effects, rehabilitation on return to earth can take up to three months.

In other questions by students, the topics of sleeping in an environment with 16 sunrises and sunsets a day, space walking – Tracy was to have that experience soon – and the potential for collision with solid matter in space were addressed.

After the ARISS contact Elizabeth Shen and William Shaw said they were both extremely impressed by the efforts made by astronauts to qualify and fly in space, giving them encouragement to strive in their chosen careers.

Elizabeth, aged 17, added: "The opportunity to speak to someone on the space station was one of the best experiences in my life." William, aged 18, said "It was really cool to be able to talk to someone who is in a completely different situation – with the zero gravity and whatnot".

Trinity Christian School Principal, Carl Palmer VK2TP/VK1TP was justifiably very proud of his students. WIA President Michael Owen VK3KI presented each with a participation certificate. WIA Centenary Patron Dick Smith VK2DIK joined the group.

All were very impressed with the way the young people conducted themselves. The ARISS contact made the news on Canberra radio stations and a detailed story appeared in the *Sunday Canberra Times*. **ar**

Fresh from speaking through space,courtesy of amateur radio to a 'notable' person, the students from Trinity get to mingle with another notable.

Meanwhile, not in the convention room

An XYL's report on the WIA Centenary Anniversary celebrations

A drizzly grey morning greeted us on Saturday 29 May as a group of 41 departed the Lakeside Hotel, Canberra for the XYL and Partners Day tour. It had taken the 100th Anniversary celebrations of the WIA, members from all over Australia and guests from New Zealand, Korea, Japan and the USA to bring rain.

Our outdoor corridors of power were resplendent with autumn colour, particularly the rows of Manchurian Pear trees lining Lake Burley Griffin. Just one species in the 50 million trees that have been planted on the treeless plain that has become our national capital.

Our tour leader, a native of Canberra, regaled us with history and stories that brought life and purpose to what is often described as a city without soul. We wiped the misty glass to peer through the rain splattered windows and view the points of interest.

The fog on Mt Ainslie cleared enough for us to clamber out and take a photo or two. As the rain began again there was no sign of bluebells, daisies

Manchurian Pear trees with the Telstra Tower in the background.

Parliament House from the steps of the War memorial.

or reptiles. With the sugar gliders and ring tailed possums tucked away in the hollows of the scribbly gums we went on to the Australian War Memorial.

We were given just one hour in this iconic and important building and so, under instruction, we headed into the enormous Anzac Hall at the rear of the complex, arriving just in time for the 10 am screening of 'G for George'. This remarkable addition places the visitor at the centre of a 1943 aerial night raid over Berlin with the Lancaster bomber at the forefront and a fighter plane with it in its sight. Lights, anti-aircraft fire, backed by a huge concave screen showing sepia film of men engaged in aerial combat.

About five minutes later, on the floor below, I grabbed a stool for a front row position to watch 'Over the front: The Great War in the air' produced by old plane buff and world famous director Peter Jackson - I'm told in exchange for some aeroplane parts. Using a combination of old and re-created footage the display clearly demonstrates the craziness of air fighting, the youth of the participants and the scariness of war.

I found a new exhibition for the current war in Afghanistan. With a nephew stationed there it's hard to ignore. The paintings looked like photos! A very different war.

So much to see, so little time but one other realistic display worthy of mention - and I don't know how I found it - is the helicopter landing in the jungles of Vietnam. They were so young, so brave in an unpopular war.

Back on the bus we were taken past the CBD retail centre, Captain Cook Memorial Fountain (the jet is currently limited to two hours a day), Magna Carta Place, the Mint, the High Court, Old Parliament House, the Treasury, a number of Embassies and High Commissions including the American Embassy where Barack Obama will stay in June and the Greek Embassy with its unkempt gardens (the gardeners were sacked).

At the National Art Gallery I had never seen the Portrait Gallery so I headed over there first. It has approximately 400 portraits of people who have shaped our nation. Having recently moved to Lake Macquarie, I was intrigued to see Robert Menzies painted by William Dobell, who had lived and worked ' just down the road'. The portrait that particularly caught my eye was Bill Leak's *Don Bradman*. But with time running short I was determined to get a photo of the Manchurian Pear Trees and the call to achieve that far exceeded the special Hans Heysen exhibition at the National Art Gallery. And I was so glad I did. They were magnificent.

Lunch was at the Botanic Garden Cafe and oh how I would have loved a fine day to wander its paths. The entrance across the bridge allowed a real rainforest experience with a pair of brightly coloured parrots feeding in the gully of tree ferns and stone paths and stairways inviting you down. Although service at the cafe was prompt, there was just ten minutes of our one hour stop to enjoy some of the 99,000 plants.

But the seat of Government beckoned and on a day devoid of politicians, public servants and press, we were able freely to roam some of the 4000 odd rooms, view some of the 2700 clocks, walk some of the 20 kilometres of walkways. There's parts of the Buckingham Palace Gates destroyed during the Blitz, one of the four Magna Carta's (1297 Charter) in the World, fantastic portraits of past Prime Ministers and paintings of the opening of Parliament House from the Tom Roberts to the more recent 1988 opening of new Parliament House with Queen Elizabeth II presiding. And didn't we have fun identifying the attendees! After a guided tour of the two Houses we returned to the bus feeling fully indoctrinated.

Our final stop of the now rapidly darkening day was at the Canberra Yacht Club on Lotus Bay. The fully enclosed cruise boat was warm, with large windows allowing us to view the Capital from yet another perspective. As we passed various landmarks the Captain's information reiterated and confirmed that of the bus driver.

Over eight hours had transpired since we had left the WIA members and their day of meetings and activities. Meticulous planning meant that the participants emerged at precisely the same time as the bus pulled up in front of the Lakeside Hotel.

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VK2news

Tim Mills VK2ZTM
vk2notes@arnsw.org.au

Into the second half of the year – where did the first half go?

This month the **Waverley ARS** have their annual auction on Saturday the 10th at the Rose Bay club rooms in Vickery Ave. On Sunday 25 July the **Albury Wodonga ARC** will conduct the Riverina Field Day. In August the **Blue Mountains ARC** will be holding Winterfest on Sunday 22. The **BMARC** has a net on 3543 kHz at 2000 hours Tuesday. **HADARC** have an exam session planned for the end of this month Best contact via the web site www.hadarc.org.au

In 2011 the next **Central Coast ARC** Field Day will be on Sunday 27 February. The club has been able to freeze the entry fee for the past 12 years, an increase will be considered for next year. The racecourse will have a new point of entry next year and a paved car park. If you have any ideas to contribute please contact the club requests Ray VK2HAY.

For the rest 2010 the **ARNSW** Trash & Treasure events are on the last Sunday of odd months: 25 July, 26 September and 28 November. A mini field day is planned for November.

NSW WICEN this month will be busy with the Bushwalkers' Wilderness Rescue Service's Nav Shield on the 3 and 4 July; the Blue Range Rally in the ACT on the 10 July; the Eden Creek Horse Enduro on 10-11 July; the Southern Mountains Rally on 31 July. Check out their web site www.nsw.wicen.org.au or send an email to operations@nsw.wicen.org.au or telephone 0408 397 217.

The **Blue Mountains ARC** held their AGM in May. The committee for this year has Gunter VK2JAP as President and Carl VK2HRC as Vice President. Richard VK2WAY is Secretary and John VK2VJA is Treasurer and Committee Alf VK2YAC, Kevin VK2ERP and Felicity VK2GRR. Other positions are Tony VK2HO with repeaters, Historian and Education with Daniel VK2DC; HF Net with Dennis VK2RM and the Web with Andrew VK2XPT. They still seek a Publicity Officer. The Club thanked Tim VK2XTT for his four years as President. The Club meets at 18 Simeon Road, Orchard Hills on the first Friday evening. This is the site of the Winterfest field day in August.

ARNSW have announced their committee for this year. President and education is Terry VK2UX, Senior Vice President Mathew VK2YAP with NTAC and Broadcast Officer and Junior Vice President Beth VK2AO with newsletter production. Norm VK2TOP is Secretary and Membership and Treasurer is Brian VK2WBK. Mark VK2XOF has Trash & Treasure, Deceased Estates and is VK2WI station engineer. Tim VK2ZTM has Publicity and Dural property. Peter VK2PJZ co-ordinates web operation and Michael VK2YC is a committee member.

ARNSW can provide licence assessments on the bi-monthly Trash & Treasure days at the Dural site. Enquiries to the office phone 02 9651 1490. Postal ARNSW P. O. Box 6044 Dural Delivery Centre NSW 2158.

In support of the Radioactive Amateur Radio Award for Scouts, **Fishers Ghost Amateur Radio Club** advises it will be on hand at Cataract Scout Park on 10/11 July to assist licensed Scouts to aim for this Award.

If any licensed Scout or Scout Group has not made arrangements to book into Cataract Scout Park for this weekend and licensed Scouts or Leaders wish to avail themselves of the assistance of FGARC, then please notify Wal Kelly at vk2zwk@wia.org.au or by telephoning 02 4626 8423 by Thursday evening 8 July, so security arrangements can be made.

FGARC will run Foundation licence classes in August to help Scouts/Leaders get Foundation licences or upgrade in time for JOTA in October.

73 Tim VK2ZTM. **ar**

VK3news

Lifting the lid on ARV's time-capsule

Jim Linton VK3PC

The Victorian time-capsule created during the WIA-75 celebrations in 1985 was opened in the Wireless Institute of Australia's centenary year.

WIA President Michael Owen VK3KI (pictured right) did the honours after Amateur Radio Victoria President, Jim Linton VK3PC explained how WIA members were invited to contribute to the time-capsule.

Items of memorabilia and many personal letters, some autobiographic in nature, plus photos, were submitted by members in 1985.

The time-capsule enclosure was a Yaesu transceiver cardboard packing box and marked "Bail Electronics", the Australian agent for that brand at the time. For the past quarter of a century it served its purpose well in protecting the contents.

Jim Linton VK3PC and WIA President Michael Owen examining the contents of the time capsule 25 years on.

At the Amateur Radio Victoria AGM on 19 May, those attending gathered in anticipation as Michael VK3KI lifted the lid to reveal a trove of printed material and sealed envelopes from WIA members including those who are now silent keys.

Jim VK3PC said he and relatively new radio amateur Tony Hambling VK3VTH will carefully examine each item in the time-capsule and compile an inventory that will be published. **ar**

VK4news

Paul Beales VK4XPB
Email: qtc@wia.org.au

BARC's new repeater, RADAR's new home, CHARC's famous AGM

Due to Chris VK4VKR wanting to devote more time to personal and business activities, he has allowed a new face to present QTC. Welcome aboard Paul.

Bundaberg Amateur Radio Club

The Bundaberg Amateur Radio Club has commissioned a new Repeater (VK4RBR, 439.775) at Mt Watalgan, 43 km NNW of Bundaberg.

Also known as Double Sloping Hummock, it is situated in the Littabella National Park with an elevation of approximately 400 m.

Early signal reports have been favourable from as far south as Childers and the Club is hoping for good coverage to the north.

Equipment consists of an Icom IC-FR600 Repeater and Arcom RC210 Controller with an RFI Col12 6 dB omni-directional antenna mounted near the top of an existing tower owned by a Club member.

Linking is planned to join up with the Club's other facilities at Mt. Goonanamen and Bundaberg City, which it is hoped will cover the increased size of the Club's WICEN commitment following Council amalgamations.

The Bundaberg Regional Council, recognizing the work of the local WICEN, assisted with funding towards the Project via a Community Grant.

For the opening there was an afternoon tea party on the Mountain attended by the Mayor, Cr Lorraine Pyefinch, several Councillors and around 20 Club Members who wasted no time convincing all present that the money was well spent. There may have also been some 'ear bending' on the great deeds of the Club and WICEN.

(l-r) Rusty VK4JM, Repeater (VK4RBR, 439.775) and Cr Lorraine Pyefinch.

RADAR - The Village Report

A measure of a club's success is attendance at meetings. Still, high numbers should not allow complacency, especially in amateur radio clubs at this time.

Invariably the majority of current members of radio clubs, consist of the purists from the 'homebrew' days and 'reformed' CBers from the 70s. Consequently, it is common to find members' average age in the high 50s or more.

As a result, Rockhampton and District Amateur Radio Club (RADAR) with usually about 40 at monthly meetings, decided to look for ways to recruit new and younger members, also acknowledging the use of the Foundation class entry, while promoting the hobby.

As previously reported in AR, RADAR was offered use of a building at Rockhampton Regional Council's Heritage Village as an operating base and highly visible public display facility specialising in vintage radio equipment.

The Rockhampton Heritage Village conducts, amongst other activities, monthly markets, numerous visits from schools and other associations and display days. It hosts approximately 48,000 visitors every year.

Since September 2009, under the management of Jeff Brett VK4NJB, the RADAR Club has transformed their site from what was basically a dusty storage area, remote from the public, to a fully working radio display centre, complete with air-conditioned, fully operating radio shack, available as an interactive unit for the public (under instruction) and for use by club members for broadcasting and contest.

The callsign VK4CHV (Capricorn Heritage Village) has been specifically allocated for the site.

The club acknowledges input from a large number of members, particularly Mike Buchanan VK4LMB, Doug Kraatz VK4DUG, Ray Dobinson VK4HOT and Bob Copeland VK4HRC. Mike, who has spent many hours on site, has probably surprised himself with the standard of construction he is capable of producing; a great job.

While the heritage theme is paramount and many valve rigs and other "pre-transistor" equipment are on display, other

A view of the inside of the shed, all nicely coming together.

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Jaycar electronics

Jeff VK4NJB shows visiting teachers the displays.

installations include several wire and vertical antennas and plans are in line for a larger tower, with beam. After all, Yagi-Uda arrays have been around since 1926.

The public, school and other groups have visited the display and attended Heritage Village events already but RADAR's official opening is on 25 July, coinciding with the Emergency Services Open Day at the Village site.

RADAR's HF ops on the day will centre on 7.080 MHz and 14.210 MHz and local VHF repeater frequency, 146.700 MHz.

The club will be displaying a portable field station, indicating the ability of amateur operators to provide support in emergency situations.

We are hoping to hear as many contacts as possible on the day to promote interest in our hobby. Please note it in your diary and give us a call.

Les Unwin VK4VIL, Publicity Coordinator, RADAR

CHARC

The famous Central Highlands Amateur Radio Club AGM will be held at the picturesque Camp Fairbairn near Emerald. The AGM is so popular, it runs from 1600 Friday 17 to midday Sunday 19 September, only interrupted by social gatherings, sausage sizzles, drinks, monster auction with mystery prizes. Not forgetting Gavin's big breakfast.

More details available from Gordon, vk4kal@wia.org.au

Gladstone Amateur Radio Club VK4RGA

A small but hardy band of members attended the Club's Amy's Peak Site at the Kroombit Tops National Park on the weekend of May 28-29. Reports of sighting a Snowman have proven false, although overnight temperatures were somewhat daunting for the intrepid crew.

A post wet-season clean up and weed control as well as some maintenance to the tower guy points was carried out.

VK4RGA is the primary regional site for the coastal Capricorn area with 2 m (146.900 also linked to VK4RBU Bundaberg), 6 m (53.725) and APRS.

Unfortunately, the Club's IRLP Node (438.075) suffered terminal failure late last year. Much effort has been put into its restoration with disappointing results.

New equipment is being sourced and, hopefully we will hear it back on air soon.

Thanks to Mark, VK4XMC.

That is it for this month. 73 de VK4XPB.

ar

The WIA Centenary Committee Call for Articles

Historical material relating to the WIA and general communications history in Australia has been received by the Centenary Committee which thanks the following:

- Tom VK4ABA for a DVD and documents relating to Queensland Pioneers of Radio and Television, 1920 – 1940. Much relates to Tom Elliott and Dr. Val. McDowell (4CM) and their television experiments and broadcasts.
- Christopher VK2EJ has sent a scan of his grandfather's Experimental Receiving Licence for a crystal receiver. It was issued by Jim Malone and dated 1923.
- Margaret, XYL of John VK2HY, forwarded a recent clipping from the *Engadine District News* relating to the first Military Wireless communication from Heathcote's Veno Reserve, NSW on 28th March 1910. Lieutenant George Taylor, founder of the WIA, organised the wireless telegraphy demonstration which also involved, Walter Hannam and Edward Kirkby.
- Neil VK6NE has forwarded material relating to activities in WA including a 1925 Amateur Operator's Certificate of Proficiency in Radio-Telegraphy for Walter Coxon 6AG, a leading light in radio in Perth.

Thank you to all who have forwarded cuttings, magazines and other material to the institute during this year. It will all contribute to preserving the history of our hobby and radio generally in Australia. The committee also welcomes articles on the future of amateur radio.

ar

WIA Centenary Award

A limited issue operating award is available to celebrate the 100th year of the Wireless Institute of Australia (WIA), the world's oldest national radio society.

To qualify for an award contact is required with the Centenary of Organised Amateur Radio in Australia special event station VK100WIA. A distinctive QSL will be available.

The WIA, through its affiliated radio clubs, will operate this unique callsign from 1 May to 31 October 2010. The callsign was used in Canberra, at the WIA Annual General Meeting and associated events on 28-30 May.

It will be on all amateur bands available to VK radio amateurs including the popular HF bands.

The award rules are: Those radio amateurs outside Australia need to achieve 50 points while VK hams require 100 points.

A contact with VK100WIA operated by the WIA or a Club is worth 10 points (only one contact with VK100WIA operated by the WIA and only one contact with each Club) and there must be a minimum of two contacts with VK100WIA.

Contacting any WIA member between 1st May 2010 and 31 October 2010 is worth five points (Example: working VK100WIA at 10 different Clubs would be eligible for the award. Working 16 WIA members gives 80 points but then two contacts must be made with VK100WIA).

Any mode may be used; cross-mode and cross-band contacts are permitted. Satellites and repeater contacts are permitted. Send AU$5 or 3 IRCs and a list of contacts (QSLs not required) to the Awards Manager WIA Centenary Award, PO Box 2042, BAYSWATER VIC 3153 AUSTRALIA.

Listen around the bands or visit the WIA website www.wia.org.au for frequent updates of the operator club's roster.

ar

WAVERLEY AMATEUR RADIO SOCIETY

Auction of Radio and Electronic Equipment.
Saturday, 10th July 2010
at
The Scout Hall, Vickery Avenue, ROSE BAY, NSW 2029

All are welcome to attend this annual event to buy or sell. Entry is only $2 and there is plenty of free parking nearby. The club is adjacent to Lyne Park and Sydney Harbour. Doors open at 8:30 am and the auction commences at 10:30. Full details, including pictures of some of the items to be sold, can be found on the club's web site at www.vk2bv.org.

Contact: SIMON VK2UA. Email: vk2bv-info@vk2bv.org

VK6news

Keith Bainbridge VK6RK
vk6rk@wia.org.au.

RAS Show preparation, *Morsecodeans*, repeater news, WICEN rallysport, ILLW and NCRG Hamfest

Conditions on HF have been pretty poor but, and it is a big but, at last I have had a response with input from other WA groups and clubs!

RAS Show September—call for support

The appeal for support for a combined display at this year's Perth Royal Show was answered by several groups and the event has been tied in with the allocation of the WIA 100 year centenary call sign activity. The VK100WIA call sign is currently allocated as follows:

WARG: Sun 26, Mon 27, Tue 28 September and VHF Group: Wed 29, Thu 30 September, Fri 1 October.

The plan is to have a link between the Perth Showgrounds and Wireless Hill where they will have transceivers operating remotely for the full six days. The Royal Agricultural Society (RAS) has granted access to the rooftop of the main building to put up any antennas/equipment.

RAS are very supportive of our presence to educate the public on amateur radio in this the centenary year. Wireless Hill will be celebrating its 100th Anniversary in 2012 so this will be a lead- up event and supported by the Wireless Hill 100 Year Committee and Melville Council.

Display ideas will involve presentations/activities at both the Showgrounds and Wireless Hill. Please consider ideas which could be suitable, that is, displays/activities for this event, and the possibility of offering equipment and/or time that week. It is also planned to have WICEN and Scouts/Jota involved.

There is a tremendous problem with RF interference in the showgrounds as was found out by the WIA many years ago so hopefully the link to Wireless Hill will reduce that possible problem. The above information came from Heath VK6TWO who is co-ordinating the event.

Also at the Royal Show there will be the *Morsecodeans Society of WA*. For several years now they have participated with a fully operational telegraph system.

They average 300 telegrams a day each day of the show and for a gold coin donation they will send a telegraph message by CW, while you watch. The message is 'read' and then mailed to anyone you request. I'm sure many of us remember the Best Man reading out the greetings telegrams at our weddings! This is a remarkable achievement on their part considering the average age of members is well over 75 years.

The NCRG is working in collaboration with the Morsecodeans Society on an exciting new project, so watch this space for future developments!

New 'group' interchange

Heath has brought to my attention a new Google group for Western Australian amateurs. The WAHAMS group can be found at http://groups.google.com.au/group/wahams All clubs/ groups are encouraged to input their information and activities to the site where I will be able to pick it up and include it in the column each month. Thanks Heath.

HARG

The Hills Amateur Radio Group are planning to install a digipeater at their clubrooms in Lesmurdie. With an altitude of about 260 metres ASL the new digipeater will enhance coverage around the Perth Hills and south eastern suburbs.

A number of members already have APRS equipment with many more planning to start experimenting. The group also plans to interface a weather station into the system. VK6AHR-3 should be on air shortly.

HARG will be using the WIA centenary call sign VK100WIA over the weekend 31 July to 1 August. You will find them on the 80, 40, 20, 15 and 10 metre bands where they hope to work you. Thanks to Martin VK6ZMS for that information.

Southern Electronics Group

The next input came from Rob VK6LD on behalf of the Southern Electronics Group.

"Hello all, a site visit was made today (Saturday, 1 May, 2010) to the Mt Barker repeater site for a working bee to replace the 2 metre voice repeater antenna damaged in storms in February, and other maintenance jobs. Attendees were Kerry VK6NHI, Bevan VK6BL, Bevan VK6BCW and Rob VK6LD.

"Bevan VK6BCW climbed the 45.5 metre tower and spent several hours aloft to replace the dual band colinear antenna, tidy up the cables and remove some redundant antennas. He was supported by the ground crew (NHI, BL and LD) who also worked on the coax feeders in the hut and checked the APRS gear over with test equipment.

"From tests so far, the voice repeater coverage is now noticeably improved. There is further work to do to the APRS system in the near future. Thanks to Bevan, Kerry and Bevan for all the work today! Any further coverage reports will be much appreciated."

That's good news Rob, it's a popular repeater with travellers on their way to Albany and the south.

WARG

The WA Repeater Group has also sent an update to their activities. WARG has made some significant upgrades to the Tic Hill repeater site with a number of working bees taking place. Next to go in is some anti-vandal remote access cameras and WiFi equipment, as well as some new antenna work.

Cateby repeater site is scheduled for a substantial overhaul with new batteries, DC distribution panel, solar panels, regulators, guy-wires, repeaters, and WIA news-link radios. All WARG repeater sites will be

working towards standardisation of interfacing, repeaters and controllers.

WA WICEN

WA WICEN has been very active in providing support to the local WA car rallies, providing SOS (Safety On Stage) communications for each of the events.

Per minute, each vehicle progressing through each stage is tracked using 'ripple calls' to ensure that any 'problems' on the track are addressed ASAP. Most months see a rally event of some kind so manning assistance is always greatly appreciated.

Anyone interested in taking part in WICEN activities should contact Jim VK6JP at jimmaree@people.net.au to attend our monthly general meeting. It's good to see WICEN with a full diary of events in which to participate.

ILLW, Rottnest and Guilderton

An upcoming event is the Annual Lighthouse on the Air contest.

The Lighthouse weekend is on 21/22 August and there is talk about activating Rottnest Island for either the IOTA or Lighthouse weekend. IOTA can be specified to RSGB for approval. IOTA info at www.rsgbiota.org/ and Lighthouse Weekend at http://illw.net

It is expected that we will do a recon to assess accommodation and location, with the idea of leasing a unit or two for the weekend. Any amateurs interested in the activation should contact Heath VK6TWO at vk3two@gmail.com.

ILLW will also see the activation of Guilderton Lighthouse at the Moore River mouth, north of Yanchep. Keep an ear out.

Northern Corridor Radio Group

Sunday 1 August will see the annual Northern Corridor Radio Group Hamfest take place at the usual location, the Cyril Jackson Recreational Centre in Ashfield. It will start at 9.00 am and there will be the usual traders with a few new additions promised this year. Yaesu, Icom, Terlin/Outbacker and others will be represented and there are already some very attractive prizes to be won in the raffle.

This is Western Australia's premier event on the amateur radio calendar so don't miss out! The usual high standard of food will be on offer in the canteen during the day with the delightful XYLs serving it up for you.

This year Jacques VK6KDX will be organising a serious Homebrew contest so we would appreciate a good input from the WA amateur fraternity and we promise there will be an excellent prize available for the winner on the day.

So get building, it doesn't have to be a transmitter or receiver, it can be an antenna, ATU, or anything else that is radio related. A feature display is planned and hopefully it will provide amusement to all visitors.

The usual Bring and Buy stall will be run by the NCRG .This seems to be diminishing in popularity over the years. Bear in mind, we only charge a small fee to handle the sale for you and it's a lot easier than having a table just for one or two items.

Tables won't cost you a cent, but every person manning the tables will have to pay the $5 admission fee. Even NCRG members have to pay! Table bookings are essential and further information is available at the NCRG website, which has changed, due to targeting by some malicious person, to http://ncrg.info

The Hamfest Co-ordinator is Richard VK6BEC and his contact email is ncrg_hamfest@hotmail.com We hope to see you all there and to meet new and old friends on the day. Please say hello to me, I'm the idiot on the microphone annoying you all day about buying raffle tickets and visiting the food department!

That's about it for this month, thanks to the various groups for their input and please keep it coming as it makes writing this column a lot easier!

The photo input was a bit lacking this month so can I remind you all that any picture for inclusion needs to be at least two megapixel quality. Hopefully there will be some black marks on the sun to keep us all interested over the next month.

73 all from Keith VK6RK

OTYletters

ACMA Frequency Audit Table

Sir, Unless I missed an announcement in AR, I would have thought that some enthusiasm might have prevailed or obvious subsequent to a read of the ACMA Frequency Audit Table dated March 2010: i.e. the possibility of a secondary allocation in the amateur service in the 415 - 526.5 kHz section of the spectrum.

Appendix D to the 5 year spectrum outlook 2010 to 2014 is a demand analysis and indicative work program for the next five years. The WRC-11 Agenda item 1.23 will consider a secondary allocation in part of the band. I would have thought that there might be some definitive comment from the management either supporting or rejecting the proposal, but like I said, I may have missed it. Maybe the President could address the issue?

The same document from ACMA in referring to the 45 - 52 MHz section as a result of desertion by analogue television, suggests that the band may be available for non broadcasting applications. This may be a contradiction though as the comment goes on to suggest that the introduction of digital broadcasting is a possibility. I do not see any reference to a WRC agenda item relating to specific use so perhaps the situation is so fluid that the amateur service may yet get a handle on the jug.

Regards Sincerely, Pete D Williams VK3IZ

SilentKey

Bob Milne VK3FO

Robertson Charles C. Milne came to Ham Radio through the Disabled Radio Amateurs Club, VK3ZZ and eventually became club president. He had been a driver of trains including the legendary R Class steam locomotives. An injury had intermittently confined Bob to a wheelchair and the condition persisted throughout his life.

Undaunted he studied and became VK3EL and later VK3FO. Operating from St Leonards in later years he was an enthusiastic DX and CW operator on HF and on VHF 2 metres. Bob drove with hand controls for some years and also experimented with hydrogen induction and various modifications. He traveled overseas a number of times, wheelchair notwithstanding. He was a regular on Skype and other computer modes. Bob passed away Thursday April 29, at age 73 after a short illness leaving Imelda, his extended family and his pet dogs.

Submitted by Ray VK3EL and Ted VK3XT

VK7news

Justin Giles-Clark VK7TW

Email: vk7tw@wia.org.au Regional Web Site: reast.asn.au

Congratulations to Thomas Karpiniec VK7NML and Andrew Welch VK7AL for making the University of Tasmania Dean's Roll of Honour for 2009.

Targa Tasmania has come and gone. A big thank you to all involved including Aaron Sweeney, Damien Almond, Andrew Cooper, Nathan Oddie, Keith Rhodes, Garry Rusden, Steve Barrett and VK7s MGW, FROO, TPE, HGO, ZLM, ZRO, ARN, DG, JGD and ZCR (apologies to anyone I have missed). This year the only non-Targa channels used were Forestry channels at Rosebery and Mt. Arrowsmith on the West Coast.

Northern Tasmania Amateur Radio Club

NTARC's May meeting saw a large audience for Phil VK7JJ's presentation on digital transmission modes.

Thanks also to Greg VK7YAD for being the remote responding station for the digital mode link demo. Thanks also to the many CCARC members who made the trip.

Peter VK7KPC also demonstrated mobile PSK31, thanks Peter. Congratulations to John VK7XX who has built up a DXCC tally of 247 countries with 168 confirmed and all via LOTW and eQSL confirmation.

Cradle Coast Amateur Radio Club (CCARC)

The well-attended CCARC May 29 meeting was an antenna construction session resulting in a 2 m end fed dipole for portable or base use. Thanks to David VK7DC and Bill VK7MX for their help. Details are on the project page of the website: http://www.my-x15.net/ccarc/projects.html

North West Tasmanian Amateur TeleVision Group

Tony VK7AX reports a 100% renewal rate of club membership with membership currently standing at 35 for 2010. Tony also thanks Jim VK7JH for conducting the WIA National News and Regional News Relays in Ulverstone over May 2010.

WICEN Tasmania (South)

On May 21-22 members of WICEN South and WICEN groups from CCARC and NTARC gathered at St Helens to provide checkpoint communications for 40, 80 and 160 km equine endurance rides.

The course of 12 checkpoints took between 18 and 23 hours to complete. Roger VK7ARN reported minus 3.9 degrees overnight! Thanks to all involved: http://tas.wicen.org.au/Photo_pages/sthelens1005.html

Radio and Electronics Association of Southern Tasmania

Congratulations and welcome to Roger Cripps VK7FRJB who recently passed his Foundation licence assessment. We look forward to hearing Roger on the air shortly.

Warren VK7FEET/VK0 sends greetings from sub-Antarctic Macquarie Island where he is assisting with the pest eradication program. Warren has made contact with Denis ZL4DB and is hoping to operate from the island if conditions and equipment permit.

The 5 May REAST presentation was the screening of the 1997 VK0IR Heard Island DXpedition Presentation by James Brookes 9V1YC and saw a great roll-up in the afternoon and evening sessions. This has lead to subsequent screenings of the 1983 DXpedition to Heard Island at ATV Nights. Our ATV presentations are extending with the use of a 1250 MHz outside broadcast "OB" being beamed back into the ATV studio for mixing and re-transmission. Thanks to Patrick, now VK7FPJB, who has configured our studio PC for titling and video streaming.

Our June 2 presentation continued with the Antarctic theme and was given by Dr Graham Denyer VK7JN who is currently working at the Australian Antarctic Division as one of a team of Division Doctors. Graham wintered at Davis base in 2005/06 as the Doctor and had many medical and radio tales to tell. Thanks Graham.

Dr Graham Denyer VK7JN spoke on Antarctic medicine and amateur radio.

Ted Carter VK7EC – SK

Edwin Gilbert Carter was born in Victoria on 3 December, 1927. His father moved the family to Launceston to set up a dental practice. Ted's later studies included chemistry; this led to a career path in nursing which he pursued for many years. In 1954 Ted married June, also a nurse, later nurse educator.

Ted's love for radio started with building his first crystal set at age nine. While married he was licensed as a radio amateur and became a very proficient CW operator. So far as I know, he never used a microphone!

During his early years of operation Ted and June used to sometimes host meetings of the, then, Northern Zone of WIA Tasmanian Division (now NTARC) at their home at Legana.

Ted became a lecturer in chemistry at the northern campus of the University of Tasmania, until his official retirement in 1982, but continued on a part-time basis for another five years.

In 1995 they moved to Trevallyn where he found short wave performance to be inferior to his previous abode so restricted his radio interests to short wave listening. During this time they spent every winter in VK4. Ted always took his SWL gear with him. He regularly sent reports to overseas broadcasters.

Following the death of their daughter Shirley-Ann in 2002, Ted's health fell into decline and he spent his last few months in a nursing home fighting a courageous battle with cancer until 15 January, 2010. He is survived by his June. Vale Ted, a truly silent key.

Submitted by Peter Dowde VK7PD.

National Field Day

On Saturday 23 October 2010, amateur radio enthusiasts from all over Australia will be showcasing amateur radio in prominent locations throughout their local area.

This activity, new to Australia, will be a good opportunity to break out your field day equipment, demonstrate emergency preparedness, but most importantly engage the public.

Introduce the general public to amateur radio, let them know a little of what it is about, without too much technical jargon. Our public face will be on display, as well as our professionalism. The common appearance of Club, WIA or special National Field Day branded clothing all helps with the presentation.

The event is not a traditional contest, with isolated groups of operators sitting on remote hilltops. We wish to generate as much positive public exposure (and traffic on the bands) as possible.

For young people, sound and visual activity is important. IRLP, EchoLink, Slow Scan TV, ATV, will appeal to the younger audience. HF may be interesting, but watch the noise. Radio direction finding is very popular, if you have the room.

Over the next 10 years, most of the Baby Boomers will officially retire. They will be looking for new hobbies and challenging activities to keep their minds active. Add the following generation, Gen Xs who are now facing empty nests with a few spare dollars and a spare room at home. What an opportunity.

Frequencies

Recommended Calling Frequencies will be advised and will accord with current WIA Band plans.

Modes

Clubs are invited to demonstrate technologies including SSB, Morse code, various digital techniques (D-STAR, SSTV, RTTY, PSK31 and WinLink), IRLP, APRS EchoLink and even amateur radio satellite.

Please email your enquiries or expression of interest to

nfd@wia.org.au

73 de Paul VK5PH, Fred VK3DAC, Gerard VK5ZQ. **ar**

The Field Day is part educational event, part operating event, part public relations event – and ALL about FUN!
Are you and your club up to the Challenge?

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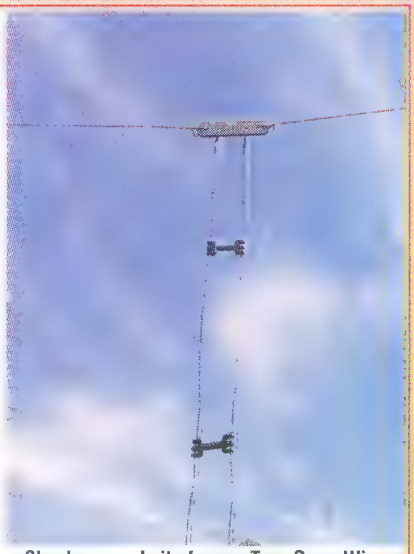

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AMSAT

David Giles VK5DG
vk5dg@amsat.org

Six-monthly review of operational OSCARs

Here is an updated review of the operational OSCARs and other satellites using amateur satellite service bands. All satellites listed here have been heard during April-May 2010 by myself except for NO-44, SO-67 and RS-22. Reports of NO-44 have been made on DK3WN's satellite blog page and SO-67 has not had its transponder turned on during this time.

Satellites revised since the last review in January: AO-7, FO-29, GO-32, AO-51, HO-68, RS-15, RS-22 CASTOR, and Swisscube. Satellite added is NEGAI.

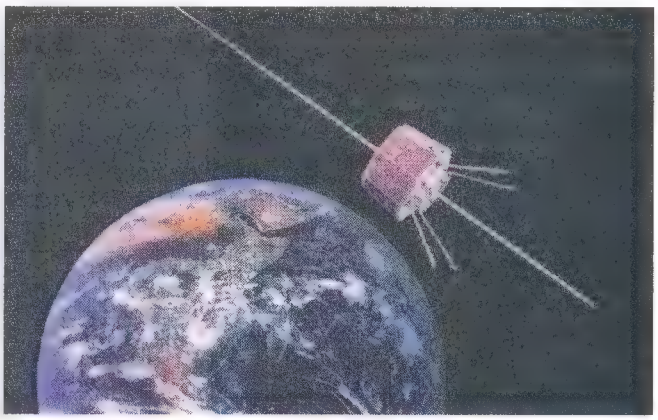
A failed satellite since last review is Ugatusat. Also POLLUX and Dragonsat re-entered during March 2010.

The names of the satellites are given as OSCAR number, full name and (NASA catalogue number). Modes are represented by frequency bands: A=10 m, V=2 m, U=70 cm, L=23 cm, S=13 cm in order of uplink/downlink.

Linear transponders use CW and SSB. With the exception of AO-7's V/A transponder, all linear transponders are 'inverting' types and use LSB for the uplink and USB on the downlink. For AO-7 mode V/A, use USB for both links. Most of the activity is in the middle of the passband.

Foundation licensees are permitted to transmit SSB/CW and FM voice to any of the satellites in the 10 m, 2 m and 70 cm bands as well as receive all the satellites. Foundation licensees are not permitted to use 23 cm uplinks (e.g. AO-51 and CO-67) or AO-51's 13 cm downlink (e.g. mode V/S). See the AMSAT column in September 2009 AR for more details.

Telemetry decoding programs for several satellites are available from Mike Rupprecht's website at http://www.dk3wn.info/software.shtml



Oscar 7 in space circa 1984 (impression courtesy Stray Internet Images)

AMSAT Co-ordinator
Paul Paradigm VK2TXT
email coordinator@amsat-vk.org

Group Moderator
Judy Williams VK2TJU
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Website
www.amsat-vk.org

Group site:
group.amsat-vk.org

About AMSAT-VK

AMSAT-VK is a group of Australian amateur radio operators who share a common interest in building, launching and communicating with each other through non-commercial Amateur Radio satellites. Many of our members also have an interest in other space based communications, including listening to and communicating with the International Space Station, Earth-Moon-Earth (EME), monitoring weather (WX) satellites and other spacecraft.

AMSAT-VK is the primary point of contact for those interested in becoming involved in amateur radio satellite operations. If you are interested in learning more about satellite operations or just wish to become a member of AMSAT-Australia, please see our website.

AMSAT-VK monthly net

Australian National Satellite net

The net takes place on the second Tuesday of each month at 8.30 pm eastern time, that is 0930 Z or 1030 Z depending on daylight saving. The AMSAT-VK net has been running for many years with the aim of allowing amateur radio operators who are operating or have an interest in working in the satellite mode, to make contact with others in order to share their experiences and to catch up on pertinent news. The format also facilitates other aspects like making 'skeds' and for a general 'off-bird' chat. In addition to the EchoLink conference, the net will also be available via RF on the following repeaters and links.

In New South Wales

VK2RMP Maddens Plains repeater on 146.850 MHz

VK2RIS Saddleback repeater on 146.975 MHz

VK2RBT Mt Boyne Repeater on 146.675 MHz

In Victoria

VK3RTL Laverton, Melbourne, 438.600 MHz FM, 91.5 Hz CTCSS tone access

In South Australia

VK5TRM, Loxton on 147.125 MHz

VK5RSC, Mt Terrible on 439.825 MHz IRLP node 6278, Echolink node 399996

In Tasmania

VK7RTV Gawler 6 m. Repeater 53.775 MHz IRLP node 6124

VK7RTV Gawler 2 m. Repeater 146.775 MHz. IRLP node 6616

In the Northern Territory

VK8MA Katherine 146.700 MHz FM

Operators may join the net via the above repeaters or by connecting to EchoLink on either the AMSAT-NA or VK3JED conferences. The net is also available via IRLP reflector number 9558. We are keen to have the net carried by other EchoLink or IRLP enabled repeaters and links in order to improve coverage. If you are interested in carrying our net on your system, please contact Paul via email. Frequencies and nodes can change without much notice. Details are put on the AMSAT-VK group site.

Become involved

Amateur satellite operating is one of the most interesting and rewarding modes in our hobby. The birds are relatively easy to access and require very little hardware investment to get started. You can gain access to the FM 'repeaters in the sky' with just a dual band handheld operating on 2 m and 70 cm. These easy-to-use and popular FM satellites will give hams national communications and handheld access into New Zealand at various times through the day and night.

Should you wish to join AMSAT-VK, details are available on the web site or sign-up at our group site as above. Membership is free and you will be made very welcome.

AO-7 AMSAT OSCAR 7 (7530)

Launched: 15/11/1974

Status: Operational only when it is in sunlight. It may be in any mode. During non-eclipse periods it will alternate between modes V/A and U/V every 24 hours. Beacons are not always on. AO-7 had an eclipse period during June. Usually it resets to mode U/V when it comes out of the Earth's shadow.

Mode: V/A (old mode 'A'), linear, non-inverting.

Uplink: 145.850-145.950 MHz, Downlink: 29.400-29.500 MHz

Beacon: 29.502 MHz CW. Occasionally the 435.106 MHz CW or RTTY beacon may be on.

Mode: U/V (old mode 'B'), linear, inverting.

Uplink: 432.125-432.175 MHz, Downlink: 145.975-145.925 MHz

Beacon: 145.972 MHz CW at 10 or 20 wpm, intermittent operation.

Check the online log for current status at http://www.planetemily.com/ao7/main.php

UO-11 UOSAT-2 (14781)

Launched: 1/3/1984

Status: Intermittent. UO-11's 145.826 MHz beacon came back to life late 2009 after being silent for 18 months and will only work when in full sunlight. You may hear its distinctive signal while monitoring the frequency for other satellites such as ISS, NO-44 and CASTOR.

Beacon: 145.826 MHz FM 1k2 AFSK

http://www.g3cwv.co.uk/oscar11.htm

IO-26 ITAMSAT (22826)

Launched: 26/09/1993

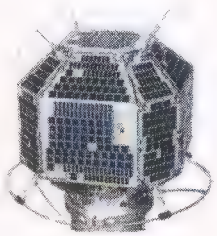
Status: Semi-operational. IO-26 is in Master Boot Loader (MBL) mode. It transmits continuous BPSK carrier with the occasional telemetry packet.

Mode: -/U 1k2 BPSK

Beacon: 435.790 MHz (Note: this has shifted from the original published frequency)

http://www.amsat.dk/oz7sat/tlm/view.php?sat=io26

FO-29 FUJI-OSCAR 29 JAS-2 (24278)



Launched: 17/8/1996

Status: Semi-operational as linear transponder. Most activity is around 435.850 MHz. The BBS and digipeater have not been in use since 2003. FO-29 is back in operation after a period of long eclipses.

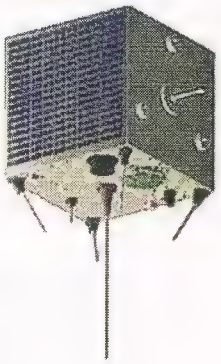
Mode: V/U linear, inverting.

Uplink: 145.900-146.000 MHz, Downlink 435.900-435.800 MHz

Beacon: 435.795 MHz CW telemetry.

http://www.ne.jp/asahi/hamradio/je9pel/index.htm

GO-32 Gurwin TechSat-1B (25397)



Launched: 10/7/1998

Status: Intermittent. Since the on-board computer crash on 30/3/2009, GO-32 has been sending intermittent telemetry. GO-32 has often been operating in 'emergency mode' with a 1k2 signal on 435.325 MHz.

Mode: V/U for APRS, 9k6 FSK

Uplink: 145.930 MHz, Downlink: 435.225 MHz

Mode: V/U for PacSat BBS, 9k6 FSK

Uplinks: 145.850 MHz, 145.890 MHz, 145.930 MHz, Downlink: 435.225 MHz

Mode L/U for PacSat BBS 9k6 FSK

Uplinks: 1269.700 MHz, 1269.800 MHz, 1269.900 MHz, Downlink: 435.225 MHz

BBS callsign: 4XTECH-12

Beacon callsign: 4XTECH-11

http://www.amsat.org/amsat-new/satellites/satInfo.php?satID=14&retURL=/satellites/status.php

NO-44 PCSAT (26931)

Launched: 30/9/2001

Status: Operational only in full sunlight. One solar panel and the batteries are not functioning.

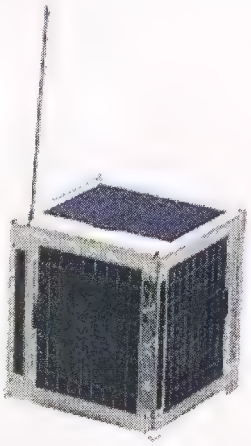
Mode: V/V 1k2 AFSK packet digipeater

Uplink: 145.827 MHz, Downlink 145.827 MHz

http://pcsat.aprs.org

SO-50 SAUDISAT-1C (27607)

Launched: 20/12/2002



Status: Operational. SO-50 has a sensitive receiver and a transmit power of only 250mW.

Mode: V/U FM voice with 67 Hz CTCSS tone

Uplink: 145.850 MHz, Downlink 436.795 MHz (but may switch to 436.800MHz).

To switch the transmitter on you need to send a few seconds of 74.4 Hz CTCSS tone. The order of operation is thus (allow for Doppler as necessary):

1) Transmit on 145.850 MHz with a tone of 74.4 Hz to arm the 10 minute timer on board the spacecraft.

2) Now transmit on 145.850 MHz FM voice using a 67 Hz CTCSS tone to access the transponder.

3) Sending the 74.4 Hz tone again within the 10 minute window will reset the timer.

AO-51 AMSAT-OSCAR-51 ECHO (28375)

Launched: 29/6/2004

Status: Operational

Mode: AO-51 is a versatile satellite that can be configured to operate in many modes, often two at a time. It can use FM and SSB voice, 9k6 and 38k4 FSK packet as a BBS or digipeater. It has 3 transmitters (two on 70 cm and one on 13 cm), four 2 m receivers and a wideband receiver that has been used on 10 m and 23 cm. Other common frequencies used are 2 m uplink on 145.880 MHz and the S-band downlink on 2401.200 MHz. Recent testing has been made to re-introduce the 67 Hz CTCSS tone for FM voice uplinks. AO-51 will be back in full sunlight at the end of August. The control team have asked to refrain from using AO-51 when it is not in sunlight.

The control team issues a monthly bulletin on modes and frequencies AO-51 will be using.

Default voice mode: V/U FM voice

Uplink: 145.920 MHz 67Hz CTCSS may be needed, Downlink 435.300 MHz

Default digital mode: L/U 9k6 FSK

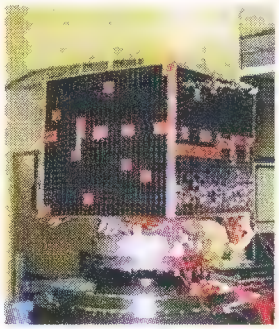
Uplink: 1268.700 MHz, Downlink: 435.150 MHz

Beacon: 435.150 MHz 9k6 FSK

http://www.amsat.org/amsat-new/echo/CTNews.php

VO-52 HAMSAT (28650)

Launched: 5/5/2005



Status: Operational. VO-52 has two linear transponders that use nearly the same passbands. The Indian transponder is normally in use. Most activity is around 145.900 MHz.

Mode: U/V linear inverting.

Indian transponder:

Uplink: 435.220-435.280 MHz, Downlink 145.930-145.870 MHz

Beacon: 145.936 MHz continuous carrier

Dutch transponder:

Uplink: 435.225-435.275 MHz, Downlink 145.925-145.875 MHz

Beacon: 145.860 MHz CW 12 wpm preset

message
http://www.amsat.in/hamsat.htm
Note: FM operation on VO-52 is permitted for QRP/handheld. In India, SSB gear is not very common and the operations team have suggested that FM operators can use this bird. If you are planning to work FM, please use another part of the passband e.g. 145.920 MHz. It would be best to arrange a sked in advance, as VO-52 is rarely used in FM mode over VK/ZL. Excessive uplink power will cause the beacon to FM.
The following are mainly Cubesats. Reception reports are often well received and can result in a QSL card for your efforts. See websites for details.

CO-55 CUTE-1 (27844)
Launched: 30/6/2003
Status: Operational. From the first cubesat launch CO-55 continues to send CW telemetry.
Mode: -/U CW telemetry
Beacon: 436.8375 MHz
http://lss.mes.titech.ac.jp/ssp/cubesat/index_e.html
CO-57 Xi-IV (27848)
Launched: 30/6/2003
Status: Operational. From the first cubesat launch, CO-57 continues to send CW telemetry. It also has an on-board camera. Pictures of the Earth can be found on the website below.
Mode: -/U CW telemetry
Beacon: 436.8475 MHz
http://www.space.t.u-tokyo.ac.jp/gs/en/index.aspx

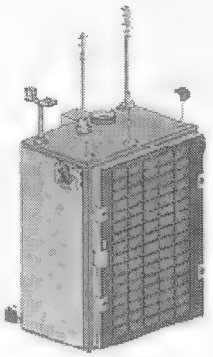
CO-58 Xi-V (28895)
Launched: 27/10/2005
Status: Operational. CO-58 has an on-board camera. Pictures of the Earth can be found on the website below.
Mode: -/U CW telemetry
Beacon: 437.465 MHz
http://www.space.t.u-tokyo.ac.jp/gs/en/index.aspx

DO-64 Delfi-C3 (32789)
Launched: 28/4/2008
Status: Semi-operational. The linear transponder has failed. The control team switched DO-64 back to science mode on 29/1/2009. Often by the time it has reached VK/ZL the transmitter has stopped, so it will be heard here occasionally. If they change it to basic mode then the telemetry will be heard over VK/ZL on most passes. The telemetry can be demodulated and decoded using software from the Delfi website.
Mode: -/V 1k2 BPSK telemetry
Beacon: 145.870 MHz (primary) or 145.930 MHz (secondary)
http://www.delfic3.nl/index.php

CO-65 CUTE-1.7+APDII (32785)
Launched: 28/4/2008
Status: Operational. The CW beacon is on. The mode L/U APRS digipeater has been activated during weekends using 9k6 GMSK modulation. Reports from Japanese operators have proven the digipeater works. Unproto via JQ1YTC.
Mode: -/U 437.275 MHz CW telemetry.
Mode: L/U 9k6 GMSK
Uplink 1267.603 MHz, Downlink 437.475 MHz
http://lss.mes.titech.ac.jp/ssp/cute1.7/index_e.html

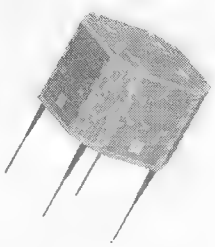
CO-66 SEEDS II (32791)
Launched: 28/4/2008
Status: Operational. CO-66 is a cubesat that transmits CW telemetry, packet telemetry and a pre-recorded message of voice and SSTV. Sometimes all three can be heard during a pass over VK/ZL as it changes modes. At 450 mW output, CO-66 has the strongest signal of the cubesats.
Mode: -/U CW telemetry, 1k2 AFSK packet and FM Digitalker/SSTV
Beacon: 437.385 MHz
http://cubesat.aero.cst.nihon-u.ac.jp/english/main_e.html

SO-67 SumbandilaSat (35870)
Launched: 17/9/2009
Status: Operational but transponder times are set by command stations. SO-67 will not be available for every pass. Its high powered transmitter (5 watts) is easily heard. There is a 3 second tail after each transmission, so pause before transmitting to the satellite. Keep your overs brief as there is also a cut-out timer. For best results set your radio to narrow FM or turn down the mic gain if your transmitter allows.



Mode: V/U FM voice
Uplink: 145.875 MHz with 233.6Hz CTCSS, Downlink 435.345 MHz
Beacon: 435.345 MHz FM recorded message
http://sumbandilamission.blogspot.com

HO-68 XW-1 CAMSAT (36122)
Launched: 15/12/2009
Status: Operational but may still be under commission. The CW beacon is on continuously and the transponders have been activated for some passes.



An operations schedule is posted on the CAMSAT website (look for times over 'Oceania').
Mode: V/U FM voice
Uplink: 145.825 MHz 67.0Hz CTCSS, downlink 435.675 MHz
Mode: V/U linear (inverting)
Uplink: 145.925 – 145.975 MHz, Downlink: 435.765 – 435.715 MHz
Mode: V/U PacSat BBS
Uplink: 145.825 MHz 1k2 AFSK packet, Downlink: 435.675 MHz 1k2 AFSK packet
Beacon: 435.790 MHz CW
http://www.camsat.cn
RS-series satellites

RS-15 RADIO ROSTO (23439)
Launched: 26/12/1994
Status: intermittent. The beacon only comes on when satellite is in sunlight, and is not on every pass.
Mode: -/A on/off carrier of 2 to 20 seconds
Beacon: 29.352 MHz

RS-22 MOZHAYETS-4 (27939)
Launched: 27/9/2003
Status: Semi-operational. RS-22 sends CW telemetry in a format similar to previous RS-series satellites. During late 2009 RS-22 became intermittent and the CW beacon was silent during some passes. The last time I heard it was in February 2010. These passes may be used for high speed DOKA transmissions over the control stations.
Mode: -/U CW telemetry
Beacon: 435.352 MHz
http://www.dk3wn.info/sat/afu/sat_rs22.shtml

RS-30 YUBILEINY (32953)
Launched: 23/5/2008
Status: Operational. Only the CW beacon has been heard over VK/ZL. Other transmission types are heard when it is in range of the control stations in Russia. It has been heard by AO-51 users when they share the same footprint.
Mode: -/U CW telemetry
Beacon: 435.315 MHz (primary), 435.215 MHz (secondary)
http://www.dk3wn.info/sat/afu/sat_rs30.shtml
Other satellites using amateur frequencies.

ISS (25544)
Launched: 20/11/1998
Status: Operational. The International Space Station has an amateur radio station that operates in many modes. Ultimately it depends on the manned crew's activities. Voice, digital, and SSTV modes are used. Sometimes experimental modes are tried; one example was a 23 cm FM repeater uplink on 1269.650 MHz.
Mode: U/V crossband FM repeater.
Uplink: 437.800 MHz FM, Downlink 145.800 MHz
Mode: V/V Digital / APRS 1k2 AFSK FM
Uplink: 145.825 MHz, Downlink: 145.825 MHz
Mode: V/V FM Voice, SSTV
Uplink: (Region 1) 145.200 MHz, (Region 2/3) 144.490 MHz, Downlink: 145.800 MHz

All images courtesy of AMSAT unless otherwise indicated

http://www.issfanclub.com/
http://www.rac.ca/ariss/

COMPASS-1 (32787)

Launched: 28/4/2008

Status: Operational. Compass-1 has a chirpy CW telemetry beacon that is normally sent every 3 minutes. If battery voltage is low it will send every 8 minutes. COMPASS-1 can be commanded by any amateur to send telemetry on demand using DTMF codes, though the satellite may not give a response each time. Every command will give a confirmation beep on 437.275 MHz.

**35## - request a test beacon CW

**36## - request a test packet 1k2 AFSK FM (UI-Frame)

**60## - request a housekeeping frame in 1k2 AFSK FM (KISS frame)

Mode: V/U DTMF command, 1k2 AFSK

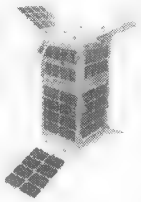
Command: 145.980 MHz, Downlink 437.405 MHz

Beacon: 437.250 MHz CW telemetry

http://www.cubesat.de

STARS (33498)

Launched: 23/1/2009



Status: Operational. STARS is two satellites tethered together. Both 'Mother' and 'Daughter' have CW and 1k2 AFSK packet telemetry on 70 cm. The CW beacon of 'Mother' is on continuously, but 'Daughter' is weaker and intermittent.

Mode: -/U FM 1k2 AFSK

Mother 437.485 MHz, Daughter 437.465 MHz

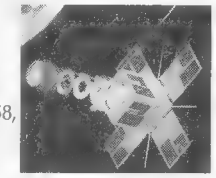
Mode: -/U CW

Beacon: Mother 437.305 MHz, Daughter: 437.273 MHz

http://stars1.eng.kagawa-u.ac.jp/english/index.html

PRISM (33493)

Launched: 23/1/2009



Status: Operational. Following from the success of CO-57 and CO-58, the University of Tokyo built PRISM to carry a larger camera with a telephoto lens. The packet downlink may be only available over the command stations in Japan, though the CW beacon is on world-wide. PRISM also has an uplink channel but frequency and modulation details have not been published yet.

Mode: -/U 1k2 AFSK or 9k6 GMSK

Downlink: 437.425 MHz

Mode -/U CW

Beacon: 437.250 MHz

http://www.space.t.u-tokyo.ac.jp/prism/main-e.html

KKS-1 (33499)

Launched: 23/1/2009

Status: Operational. KKS-1 transmits a series of messages on its CW beacon. Its mission is to demonstrate a laser ignition thruster and reaction wheels.

Mode: -/U CW message.

Beacon: 437.385 MHz

http://www.kouku-k.ac.jp/~kks-1/kks-gs-top-e.htm

CASTOR (35694)

Lunched: 15/7/2009

Status: Operational. CASTOR is a being used to study the Earth's upper atmosphere. It transmits a weak 1k2 AFSK packet signal. CASTOR is used to reflect lasers to determine its exact position and measure the drag induced by the density of the Earth's upper atmosphere.

Mode: -/V 1k2 AFSK

Beacon: 145.825 MHz

https://goby.nrl.navy.mil/ANDE/Castor.html

SWISSCUBE (35932)

Launched: 23/7/2009

Status: Operational. Swisscube transmits CW telemetry with frames every 30 seconds. The tone quality of the transmitter is poor. Decoding software is available at their website.

Mode: -/U CW

Beacon: 437.505 MHz

http://swisscube.epfl.ch

ITUpSAT (35935)

Launched: 23/9/2009

Status: Operational. This Turkish cubesat transmits a frame of CW every three minutes giving its name and callsign.

Mode: -/U CW

Beacon: 437.325 MHz

NEGAI (36575)

Launched: 20/5/10

Status: Operational. NEGAI is a cubesat launched with JAXA's Venus orbiter but put into a low Earth orbit. Its mission is to test a Field Programmable Gate Array device. Negai is in a very low orbit and should decay in less than a year.

Mode: -/U CW

Beacon: 437.305 MHz

http://kuro.t.soka.ac.jp/main.html (in Japanese)

Final pass

It is good to have FO-29 back in operation but GO-32 may be on the way out. Recent reports suggest that FO-29 may not be fully recharging and shutting off under heavy usage. AO-51's batteries have weakened to the point where they may not keep the transmitters turned on during eclipse periods. The next eclipse period starts around January 2011 and after that AO-51 may only be operational when in sunlight.

Bob Arnold VK3ZBB SK

On Friday 14 May 2010, the AMSAT community lost a pioneer member.

Bob Arnold VK3ZBB passed away quietly leaving a profound gap in many people's lives. Bob's contribution to the art of satellite communication was immense.

He wrote the AMSAT column for AR magazine in the early days when information gathering was difficult and just about everything had to be gleaned from on-air experience. The PC and Internet had not yet invaded our lives. I well remember Chas Robinson and Graham Ratcliff reading out EQXs and keps on noisy HF bands before home computers became common.

The all important numbers came from Bob who had contacts in high places. He wrote software for his early model Sinclair computer when programs were stored on tape. It enabled him to decode the picture information from the earliest University of Surrey satellites. He treasured those pictures, glued together from strips of heat sensitive thermal printing paper and posted on his shack wall.

Bob is credited with being the first Australian amateur to make contact with the Russians on the MIR Space Station – if not the first in the world.

My original contact with Bob was when our school radio club ventured into satellite comms. He offered us advice, practical help and equipment willingly. Later when I became involved with the UoSat digital birds Bob was always there with timely advice.

He was modest by nature yet it was around Bob that people clustered at what became regular monthly luncheons for the Melbourne satellite group. Those ranks are thinning now and Bob's passing will be a reminder to those of us left of the early days of the birds and how much sheer fun we had when everything was being newly discovered.

To paraphrase Bernard de Chartres, "We should always remember that today we see so far because we stand on the shoulders of giants like Bob Arnold. "

Thank you Bob for the grand fellowship around the lunch table and the friendship both on and off air and of course on the birds.

Bill Magnusson VK3JT

A simple, effective RF speech processor

Chas Gnaccarini VK3PY

Single sideband (SSB) speech modulation is characterised by a waveform which has a very high peak-to-average amplitude ratio. That is to say, the modulation envelope contains frequent, short-duration transient peaks of high power while the main "body" of the envelope contains relatively low power.

The amplifier stages following the filter must operate within their linear range to avoid envelope distortion and consequent "splatter". Consequently, while instantaneous envelope peaks might drive the output stage to full rated power, the *average* transmitter output will be relatively low.

Typically, a speech modulated 100 W PEP SSB transmitter may only deliver 5-10 W of average power output, depending on one's voice characteristics.

Several speech processing schemes have been devised to increase the average power content of SSB speech waveforms. They include audio compression, audio clipping, RF compression (ALC) and RF envelope clipping.

Of these, RF envelope clipping is generally acknowledged to be the most effective. Its most usual implementation in amateur band transceivers also makes it the most complicated and expensive approach.

This is because the audio waveform from the microphone is first modulated to a double-sideband envelope which is then amplitude-limited (clipped), passed through a narrow filter to remove the resulting harmonics, then demodulated back to audio. The resulting waveform then continues along the normal SSB modulation path.

It occurred to me that an RF clipping scheme need not be as complicated...

So the modulation and filtering process is performed twice, for no other reason than to allow the processor to be readily switched in or out as desired.

Transceivers such as the old Yaesu FT-101E, FT-101Z and FT-107 series are examples which employ this technique. The speech processors in these rigs are among the best in the business.

Most other SSB rigs, if fitted with speech processing at all, employ the rather less effective technique of audio compression. With a few exceptions, most VHF and UHF multi-mode rigs employ no speech processing at all.

It occurred to me that an RF clipping scheme need not be as complicated as described above.

Most of the circuitry required is already present in our SSB transmitters, which are nearly all based on the "filter method" of SSB modulation. The DSB modulator and SSB filter are already in place.

All that is needed is the addition of a clipper circuit. The latter is surprisingly cheap and easy to fit, at least in principle, if not always in practice, providing a point can be found along the transmit IF path prior to the filter, where the signal amplitude is of the order of a few hundred millivolts peak-to-peak.

The clipper simply consists of a pair of 1N4148 diodes cross-connected across the signal path at a point just prior to the filter, together with a 1 nF disc-ceramic capacitor as a DC block, as shown in Figure 1.

This is how I went about adding RF speech clipping to two of my two metre SSB transceivers. It may be taken as representative of how it may be done in other transceivers.

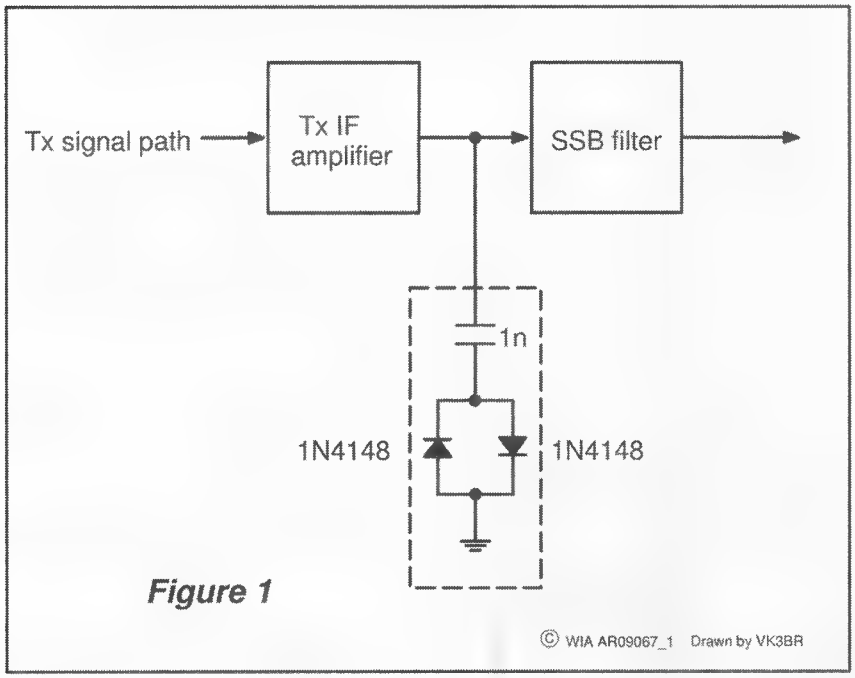


Figure 1: The components shown within the dashed lines form the envelope clipper circuit.

The Yaesu FT-290R (Mk 1)

I have often received reports of rather "thin" sounding SSB modulation from my FT-290R. I have noted the same on transmissions from other FT-290Rs.

A measurement of the modulation envelope at the collector of the TX IF amplifier prior to the filter (Q1009 in the Yaesu circuit diagram) showed that while the modulation transients exceeded 4 Vpp, the main body of the envelope reached no more than about 1 Vpp.

It was simple to add the clipper circuit from the collector of Q1009 to ground. These diodes limit the envelope amplitude to about 1.4 Vpp, representing about 9 dB of clipping.

Procedure:
Commence by opening the rig and removing the battery cradle to gain access to the underside of the main circuit board.

Before proceeding further, I suggest replacing capacitor C2001. This is a 1 µF electrolytic capacitor in the SSB microphone amplifier circuit. It is likely to have become leaky (electrically speaking). This upsets the bias of Q2001 giving rise to distorted transmit audio on SSB. It has no effect on FM.

I replaced it with a 1 µF ceramic capacitor which is more reliable than an electrolytic.

The diodes and capacitor may now be fitted. Figure 2 shows the placement of these parts.

After fitting the clipper components, the microphone gain may need to be adjusted, depending on where it was initially set. An on-air test is a simple, if somewhat subjective way to do this.

Do not be tempted to increase the mike gain too far as background noise and the sound of breathing may become objectionably loud.

This completes the modification, and the rig may be re-assembled. Note that operation on FM is not affected as the FM signal path is entirely separate from the SSB path.

It is worth mentioning that since modifying my FT-290R I have consistently received unsolicited, complimentary reports of clear, crisp and "punchy" SSB transmission. I now use it as the IF rig for my 1296 MHz system.

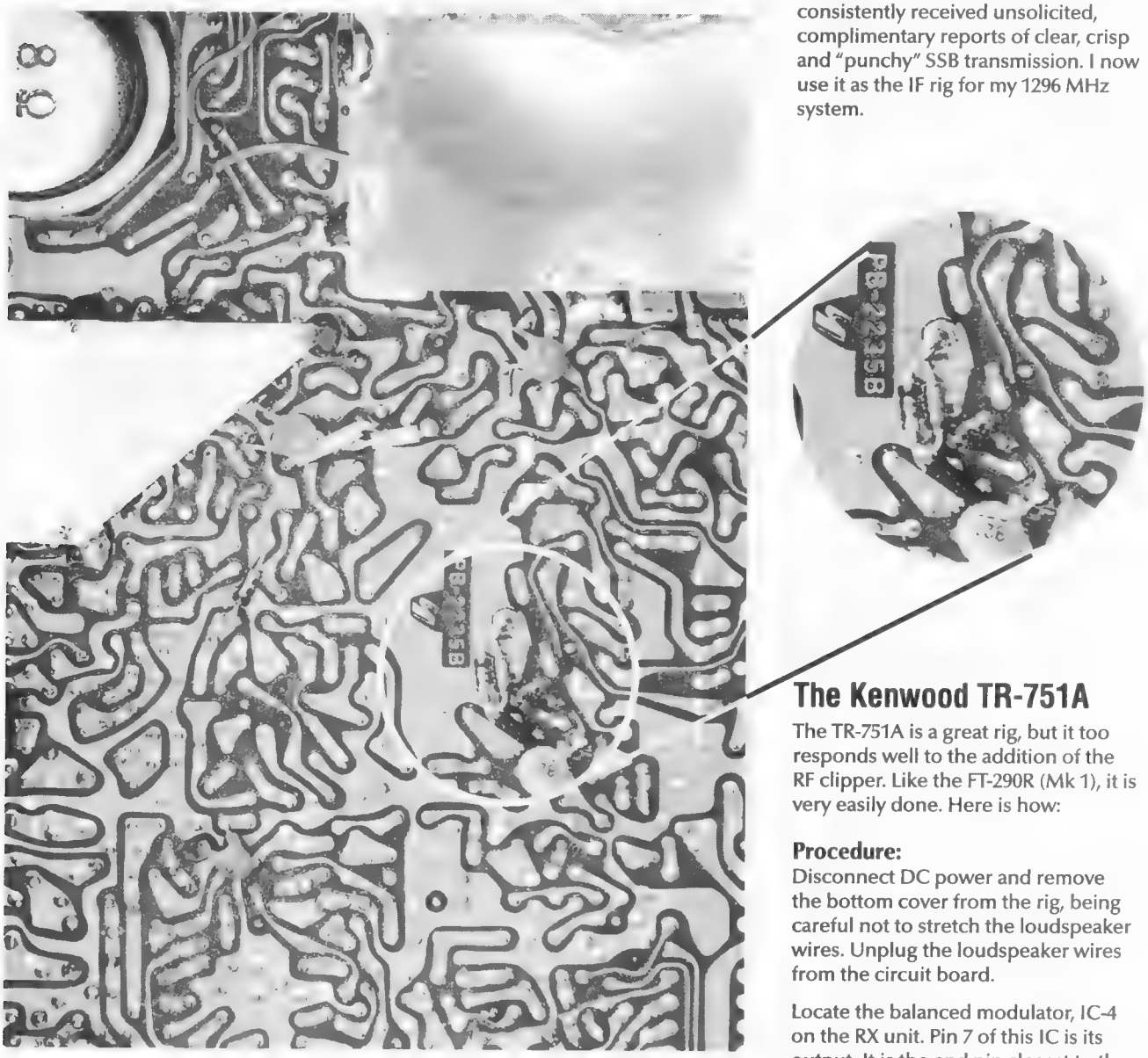


Figure 2: Shows the placement of the diodes and capacitor on the FT-290R (Mk 1) main circuit board.

The Kenwood TR-751A

The TR-751A is a great rig, but it too responds well to the addition of the RF clipper. Like the FT-290R (Mk 1), it is very easily done. Here is how:

Procedure:
Disconnect DC power and remove the bottom cover from the rig, being careful not to stretch the loudspeaker wires. Unplug the loudspeaker wires from the circuit board.

Locate the balanced modulator, IC-4 on the RX unit. Pin 7 of this IC is its output. It is the end pin closest to the front panel of the rig.

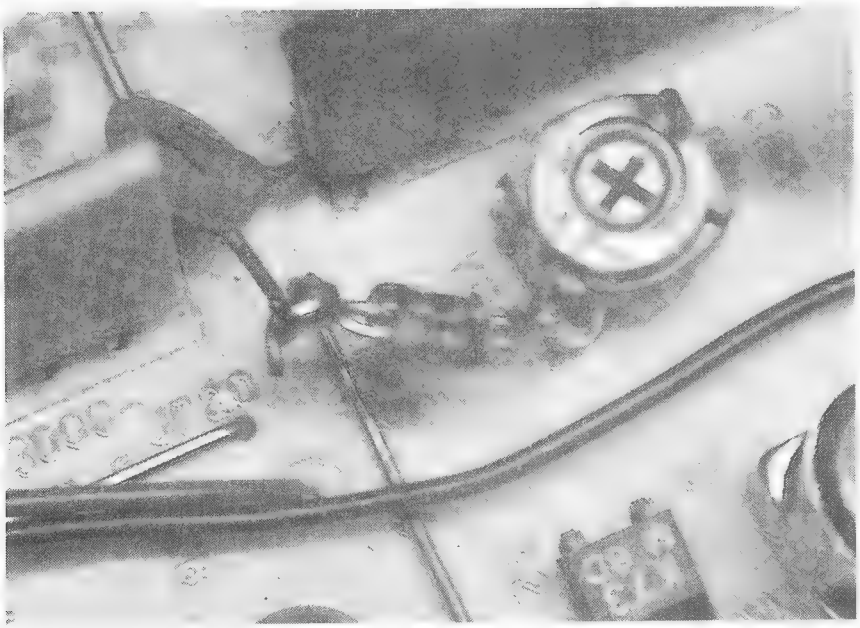


Figure 3: IC4 with the clipper components in place on the TR-751A circuit board.

The body of the modulation envelope at this point is about 1.2 Vpp with transients exceeding 3.5 Vpp. Adding the clipper at this point provides about 8 dB of clipping.

Prepare a 1 nF disc ceramic capacitor with one lead cut to a length of about 8 mm. Bend the end of this lead into a hook about 2 mm long.

Carefully move the black wire that runs past IC-4 temporarily out of the way. Hook the capacitor's lead around pin 7 of IC-4 and solder it, being careful not to short it to the adjacent pin.

Solder the diodes to the ground connection which may be made to the earth end of VR9, nearby.

I found it helps to scratch off some of the plating from this pin of the trimpot to effect a quick solder joint. Do not disturb the setting of VR9 as it is the carrier balance control.

Finally, cut the other end of the capacitor to length and solder it to the other end of the diodes. Figure 3 shows IC4 with the clipper components in place.

Now power up the radio and perform an on-air test. It may be necessary to adjust the microphone gain. Again, do not be tempted to overdo it. As a guide, in my rig the mike gain is set at about 25% up from zero. Re-assemble the rig on completion of the work.

Some Considerations

Diode Selection

Fortuitously, both rigs described in this article produced a transmit IF envelope of around 1.2 Vpp at the SSB filter input.

The obvious choice of diode was the 1N4148/1N914, being a silicon diode with a nominal 0.6 V forward conduction voltage. Cross-connected, these diodes clip the envelope at about ±0.7 V.

Other rigs may produce a significantly lower signal voltage, in which case a pair of hot-carrier or germanium diodes might be a better choice. Especially with the latter, it is worth hand-selecting diodes with closely matched forward conduction voltages.

Audio Frequency Response

Speech processing tends to boost the bass response of the transmitted signal. If you find it excessive, experiment with a small value capacitor in series with the microphone element to roll off the low frequencies. I did not find this necessary in either rig.

Mobile Operation

Employing a speech processor may not be a good idea if you intend operating SSB mobile, or in other noisy environments. By its very nature it will boost the background noise. At the very least, err on the conservative side when adjusting the mike gain.

PA Dissipation

RF clipping significantly boosts the average RF output of an SSB transmitter. It follows that its PA dissipation will increase accordingly.

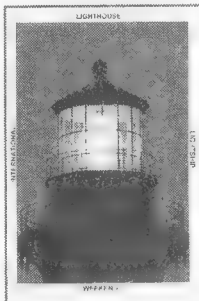
Adequate cooling should be provided. Multi-mode rigs like those described are rated for continuous-carrier (FM) operation anyway, so this ought not to be a problem. However, the dissipation of external PAs may need to be considered. So will the DC supply capability.

EMR Exposure

It might surprise you to see this topic mentioned in this context.

However, our EMR exposure limits are based on *un-processed* SSB. If your station operates at high EIRP, using RF clipping could push it well beyond the limit.

Six dB of clipping increases your average EIRP by a factor of four times over unprocessed SSB. It is easier than you think for a high-powered VHF or UHF station to exceed the EMR exposure limits.



Plan now to light up your life

International Lighthouse Lightship Weekend

Organised and controlled solely by the Ayr Amateur Radio Group, Scotland.

This year's event

21-22 August 2010

Purpose: To promote public awareness of lighthouses and lightships and their need for preservation and restoration, to promote amateur radio and to foster International goodwill.

Get all the details you need from the official web site, maintained by Kevin VK2CE at:

http://www.illw.net

So far there are 35 VK Lighthouses registered for this year's event.

Let's get at least 50 on the air.

After all there are 350 to choose from.

2010 WIA Grants Scheme

Friday 30 July is the closing date

for applications for the WIA Club Grants Scheme for 2010.

Full details of the 2010 rules for the scheme can be obtained from the WIA Web site http://www.wia.org.au/members/affiliation/about/ together with a template setting out the suggested application headings for an executive summary, identifying how the club seeks to meet the objectives of the scheme and guidance regarding supporting documentation.

The Board directs the Grant Committee to recommend applications which focus on projects and activities (to be conducted before 1 April 2011) to attract new amateur radio operators to the hobby, also projects supporting emergency communications and preparedness for emergency communications.

The WIA Board has again this year allocated $6,000 for distribution to qualifying Affiliated Clubs.

Affiliated Clubs with a membership including at least 50% WIA members qualify to participate, though the Board has discretion to allow a lesser percentage in special circumstances.

"I urge affiliated clubs to participate in this opportunity" Michael VK3KI said; "however, it is most important that clubs read the rules very carefully".

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http://www.wia.org.au/members/affiliation/about/

EVENTS

GippsTech 2010

Saturday Sunday 10-11 July
Churchill, Victoria

WARS Auction
Rose Bay NSW 10 July

GGREC Hamfest
Cranbourne Vic 17 July

AWARC Riverina Field Day
Lavington NSW 25 July

BMARC Winterfest
Blue Mountains NSW
22 August

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See the web site for more info

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VHF/UHF An Expanding World

David Smith VK3HZ
vk3hz@wia.org.au

Digital DX Modes

Rex Moncur VK7MO

WSJT8

A new version of WSJT called WSJT8 is about to become available for testing and evaluation. It will have new modes for meteor scatter, ionscatter on six metres, EME and HF QRP and promises improved performance in all of these areas. Both the EME mode and the HF QRP mode should have potential for weak signal VHF/UHF tropo-scatter.

10 GHz Rain Scatter using JT4F

Colin VK5DK and Russel VK3ZQB have been successful in working from their home stations over a 140 km path using JT65c on tropo-scatter and have also noted strong signals due to rain scatter. The rain scatter signals are typically spread over almost 100 Hz and are too wide for JT65C. To overcome the spreading they have conducted tests with JT4F and been successful in decoding signals as shown in Figure 1.

JT4F uses four tones spaced 160 Hz apart. At the bottom of the waterfall display in Figure 1 one can see the four tones via tropo-scatter and as one moves up the waterfall one can see the tones at a higher frequency which are spread due to Doppler on the signal scattered from the rain. As the rain scatter signal builds up and drops in frequency, the tropo-scatter signal fades presumable because it cannot get through the rain. In this case only two decodes were successful but Colin advises they have had generally good results on rain scatter with JT4F.

10 GHZ Aircraft Scatter using JT65C

Rex VK7MO and Dave VK3HZ have now completed a 624 km QSO between Mt Wellington near Hobart and Sunbury north of Melbourne using JT65c and aircraft scatter. Best signals were -16 dB on the WSJT scale and signals were decoded for around 14 minutes on each aircraft pass. A detailed report of the results on this work is at: http://www.vk3hz.net/aep/AEP_on_10GHz_part_2.pdf

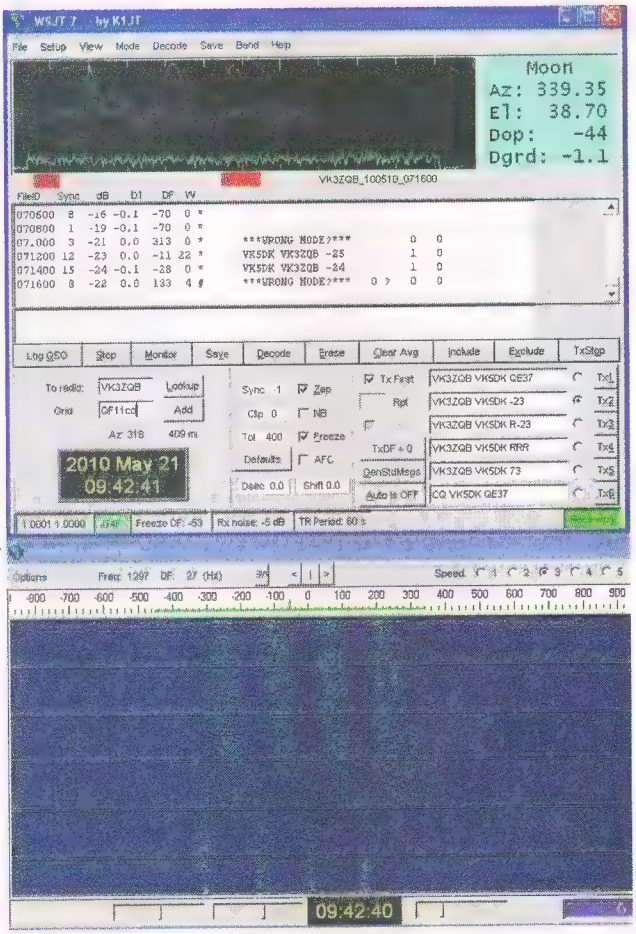

Figure 1: Waterfall shows rain scatter.

Please send any Digital DX Modes reports to Rex VK7MO at rmoncur@bigpond.net.au

The Magic Band – 6 m DX

Brian Cleland VK5BC

Very little to report for May, the only significant openings being E's on the 24/25th. Other than these there were only a few short E openings with one or two quick contacts completed mainly from VK4. Meteor contacts continued to be completed most mornings with the Eta Aquarids meteor showers producing some good burns in early May.

Brad VK2QO, who coordinates the meteor scatter contacts each morning, reports the following:

Didn't the Eta Aquarids produce same good burns at the beginning of May. Also good to see so many take part in that shower.

Contacts were completed with the following on the mornings of:

2nd: 2142 Z Brian VK4EK 5/7, 2226 Z Joe VK7JG 5/7.

3rd: 2208 Z Joe VK7JG 5/9, 2228 Z Brian VK5BC 5/5, 2228 Z Garry VK5ZK 5/5.

4th: 2203 Z Brian VK5BC 5/7, 2208 Z Brian VK5BC 5/5.

5th: 2153 Z Norm VK3DUT 5/5.

6th: 2053 Z Scott VK4CZ 5/7, 2100 Z Scott VK4CZ 5/9, 2124 Z Glenn VK7AB 5/7, 2126 Z Norm VK3DUT 5/7, 2128 Z Glenn VK7AB 5/9+, 2145 Z David VK3AUU 5/7 and at 2146 Z Peter VK5PJ 5/3.

7th: 2123 Z Scott VK4CZ 5/7, 2250 Z Brian VK5BC 5/7.

28th: 2128 Z Frank VK7DX 5/1.

29th: 2203 Z Glenn VK7AB 519.

17 contacts were made in that class 1 shower and 2 with random meteors at the end of May.

The next class 1 shower is the Southern Delta Aquarids from 21 July to 23 August with the peak around 30 July.

And do not forget there are still many random meteors falling every day.

Good 'E' opening on 24 May between ZL and VK with Bob ZL1RS working several VK2, 3 and 4s as well as hearing the VK5RBV beacon.

Further E's on the 25th with Kerry ZL2TPY and Rod ZL3NW working several VK2, 3 and 4s. Band also opened from VK4 to VK3 and 7 with Brian VK4QB and Brian VK4EK working several stations.

I apologise for the lack of information and content in this month's notes but I was fortunate enough to be on holidays in Hawaii during two weeks of May.

Whilst there I went to breakfast one morning with a group of KH6 hams. Unfortunately could not get much interest in 6 m from them, but thanks to Bill KH6OO I was able to visit the Battleship Missouri in Pearl Harbor and operate KH6BB from the Battleship.

Conditions were not prevailing to VK but I was able to work several mainland USA stations on 20 m. I was however able to work some VK5s via IRLP from the Battleship.

I made a few contacts on various Hawaiian repeaters with my hand-held. Of interest is that you find the repeaters are not every 25 kHz but will be on 146.880 or 146.760 etc. It was a challenge to get my handheld to tune in 5 kHz steps without the manual.

I also visited the QTH of Bill KH6OO, Bill and his wife have a one bedroom Condo about 20 floors up overlooking Honolulu and he has his rig (IC-7800) setup in the bedroom.

Of interest is his antenna, a magnetic loop made out of 51 mm (2 inch) diameter copper pipe mounted on a basketball hoop support base on the balcony.

Photo 1: Yours truly (with hat) operating KH6BB on 20 m with Ned KH7JJ logging.

Photo 3: Bill's bedroom shack.

Photo 2: Breakfast with the KH6CO club group; spot the Aussie with the white cap.

I had worked Bill on 10 m a few weeks before visiting Hawaii and was very surprised to see the antenna Bill was using. Bill uses it on several HF bands and claims great success and I can certainly vouch for his signal on 10 m.

Please send any 6 m information to Brian VK5BC at briancleland@bigpond.com

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Contests

Craig Edwards VK8PDX
vk8pdx@yahoo.com.au

CONTEST CALENDAR

July	3-4	DL-DX RTTY Contest	RTTY/PSK
	10-11	IARU HF World Championships	SSB/CW
	24-25	IOTA Contest	SSB/CW
August	7-8	10-10 International Summer Contest	SSB
	14-15	**Remembrance Day Contest**	**CW/SSB**
	14-15	Worked All Europe	CW

Conditions have taken a bit of a dive after the promising improvement at WPX SSB, which seems a long time ago.

Unfortunately for the second year in a row I'll miss the IARU HF World Championships. I'll be in the process of moving so the VK4KKD trailer tower will be in the flat pack position and all the radio gear will be in boxes.

I'll be on the air by early August after tearing down VK8PDX in late June. I'll be working in Townsville, hopefully more DX friendly than Alice Springs. My antennas will be looking forward to being a LOT closer to water paths for DX rather than the Red Centre. It's a pretty quiet time on the contest front, there are plenty of smaller events around but things really heat up again around August/September, so apart from IARU & IOTA, I shouldn't miss too much.

IARU HF World Championships: July 10-11

The rules for this were in last month's issue and can be found at www.iaru.org/contest.html. Remember that this coincides with the World Radio Team Championship, so keep up to date with all the happenings at www.wrtc2010.ru

Islands on the Air (IOTA) Contest 2010 July 24-25

The rules for this contest were in last month's issue, latest is on www.rsgbcc.org/hf/iota.shtml **ar**

Geelong Amateur Radio Club - The GARC

Tony Collis VK3JGC

Peter VK3ZAV took the GARC to see the big boys play radio, on a scale several orders of magnitude greater than we are permitted both in power and antenna tower height.

Peter VK3ZAV

Some 25 km east of Geelong, at Murradoc hill in the centre of the Bellarine Peninsula is a 123 metre tower, and a brick building that houses four FM broadcasting transmitters, and a 175 kVA standby diesel generator and other facilities.

The main FM transmitting antenna, located at the mast top, is six panels of crossed dipoles (circular polarisation) on each of two of the four sides. This antenna directs the signal over a 180 degree sector from Lorne on the south west coast, north west to Geelong, and around to Werribee in the north east; but not towards Melbourne and its suburbs to the east.

There are two commercial transmitters, K-Rock 95.5 MHz, Bay FM 94.7 MHz, and two community transmitters, the Pulse 93.9 MHz and Rhema FM 96.3 the Christian station; at the site all feeding into the one aerial array.

The antenna is in two bays, upper and lower, and the full gain, some 10 dB, is achieved when equal power and phase is being fed to each bay; three at 5 kW output, giving 55 kW effective radiated power each, because of the antenna gain.

Coupling to the antennas is done with two separate feed cables, a fault on one bay can be dealt with by feeding the total power into one bay only, which results in a drop of gain and signal of 3 dB.

The dual feeder means the cable length to each bay differs by the height of one bay, about 10 metres, so an extra length of cable is used inside the building to equalise those lengths, and keep the phase equal too.

Feeding four transmitters into one antenna is complex, any one transmitter's output power must not enter any of the others, asintermodulation would result in the sum and difference frequencies spreading across the FM spectrum.

The connecting cable for the high power FM transmitters is a rigid 3 1/8 inch air spaced copper tube cable inside the building, and up the tower are semi flexible Heliax, gas pressurised to keep out moisture.

The programs for transmission come via microwave links, using a few of the other antennas on the tower, all additional antennas lower down the tower are used by other services.

The trip was an awesome experience and the GARC expresses its thanks to John Sandles, the engineer in charge of this station (and about 27 others), for taking the time out to show us around.

ar *Part of the control room at Murradoc Hill.*

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Centenary Merchandise

To help members celebrate the WIA Centenary, a range of 'limited edition' Centenary merchandise is now available for online purchase via the Centenary Merchandise section of the WIA website.

The merchandise below sports the WIA 100 Years Centenary logo and is being expanded to include many other commemorative items and memorabilia. Members are encouraged to keep an eye on the WIA website for all the latest products. Visit **www.wia.org.au** and click the Centenary logo on the right hand side of the home page.

All shirts and jackets are available in the following sizes: Small, Medium, Large, X-Large, XX-Large, XXX-Large.

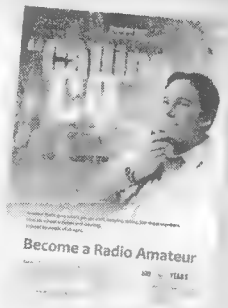
Please note: all prices below are WIA member prices and are inclusive of GST, delivery charges are calculated with your online order.

Centenary polo shirt: $25

Centenary tie/ jacket pin: $8

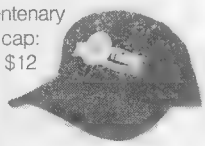
Centenary logo sew on patch: $8

WIA Centenary poster A1 size: $10



WIA Calling CQ poster A1 size: $10

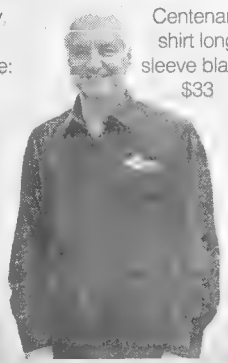
Centenary bucket hat: $12



Centenary cap: $12

Centenary shirt short sleeve black: $32

Centenary shirt long sleeve white: $33



Centenary shirt long sleeve black: $33

Centenary fleecy vest: $35

Centenary ranch jacket: $94

DXNews&Views

John Bazley VK4OQ
john.bazley@bigpond.com

Island gone? Motor gone, Macca gear gone

R1MV – Malyj Vysotskij Island

Will this be deleted from the ARRL DXCC list? This could be the first deleted DXCC Entity since the DXCC 2000 rules went into effect at 2359 Z on 31 March 1998.

The Russian Prime Minister, Vladimir Putin, recently met the Finnish Prime Minister Matti Vanhanen in Lappeenranta, in Finland. One subject of their meeting was a new lease of the Saimaa Canal and the surrounding area. The original 50 year lease was agreed in September 1962, which eventually gave Amateur Radio operators the DXCC Entity of Malyj Vysotskij Island (M.V. Island) in the late 1980s.

The new agreement, which takes place in 2013, no longer includes the lease of Malyj Vystosky Island (Ravansaari as the Finns call it). Thus there is a change to the original condition in which MV Island was added to the DXCC list. The first operation from M.V. Island, 4J1FS, took place in July 1988.

Under the new agreement, in 2013, MV Island would no longer meet the original criteria for the DXCC list. Therefore MV Island would need to be deleted from the DXCC list.

DX Summit

It has been announced by Radio Arcala that it is now possible to specify the detailed information that you require from the Cluster, after you have registered at www.dxsummit.fi Please note that there is a new discussion forum at the above address seeking new application ideas - this forum is monitored by the software folks of Radio Arcala.

T31UR and T31X:

The Pacific Odyssey team left Apia (Samoa) later than planned and, after a bureaucratic hiccup, was expected to reach Kanton Island around May 25. However, when they were just 120 nautical miles away from Kanton, the vessel's engine failed and the captain decided to sail back to Apia (a 8/10-day voyage). "This decision was determined by the fact that the entry to the Kanton's cove without engines would be impossible", the team says, "and the repair of the engine at sea is also impossible". Their main concern is to reach Apia safely ("200 litres of fresh water left" and still 450 nautical miles to go as at May 28th).(safely arrived —ed).

It has just been announced (June 3) that the Ukrainian Pacific Odyssey DXpeditioners have now departed Tokelau (ZK3X) and are heading for Apia, Samoa. Upon their arrival at Samoa they plan to search for a new ship so that they can try again for Kanton Island (T31).

VKØM – Macquarie Island:

from Paul Ormandy, ZL4PW

"I can now announce (at the beginning of May) that my mate Denis ZL4DB is off to Macquarie Island for three months.

Denis is not an experienced DXer but hopes to get to the Macca DX-shack every now and then and make some SSB QSOs. I will be his QSL manager and initially will help him manage callers until he gets the swing of his logging program and equipment.

Denis will e-mail me and we will set a sked which I will post, possibly at short notice. Denis will be primarily involved in pest eradication on the island. There is a sizeable team of helicopter pilots and crew from NZ joining the Aussie Antarctic Division and the Aussie equivalent of DOC.

Daylight hours will be short though the lack of howling winds during this three month period means it is an optimum time for bait drops to curb the rabbit and rat population. Must be very, very tough rabbits and rats! Cheers, Paul Ormandy, ZL4PW".

Early in June the following was announced by Paul! "Denis is now at Macca Base on the island and says the amateur gear thought to be there is gone. All that remains is a 2 m rig.

He says "I was so disappointed when I got up to the ham hut. There are insulators going through the wall but no wires attached. Paul ZL4PW says on future assignments "We will make sure he is well equipped." Denis' stay on Macquarie ends in late August." So it looks as though there is a possibility of further activity from there in the future.

DXing about

Jan DJ8NK and Paul F6EXV have done a great job, as guest operators of Christian TL0A putting the Central African Republic (CAR), on RTTY (Jan) and CW (Paul).They have had about 12,000 QSOs. All QSL cards must go to TL0A's QRZ.com address as Jan and Paul will not be able to confirm any QSOs. Christian will be departing CAR in July of this year but will be active on RTTY before he leaves. His next stop may be Niger, 5U, in September.

FT5 - Crozet and Kerguelen: Daily DX is reporting that Gildas TU5KG has been assigned calls for both islands: FT5WQ for Crozet and FT5XT for Kerguelen. You may recall that Gildas has been to both areas aboard a fishing boat in the last few years. You might keep an open ear for these callsigns as we do not get much advance notice of when he will be on these islands. He leaves for a three month trip in June.

Lionel F5PSL (ex TJ3SL) reports he is now on the Indian Ocean island of Mayotte and will be QRV as FH8ND until August 15. Expect little activity until the end of June. He has an FT-897 running 80 watts into a dipole and plans to be QRV on 3.5 through 50 MHz on SSB. QSL cards should go to F1OKV (not F5PSL) either via the bureau or direct.

Sergey UT1EO will be active as D2QR from Lunda Norte province of Angola until 22 April 2011. He plans

Continued foot of facing page

Robin L. Harwood VK7RH
vk7rh@wia.org.au

Dead air, hot spots, Oki Tedi and midwinter propagaton

It is that time again. Here I am in front of my computer and wondering about what to write. Shortwave is definitely in decline, especially in the broadcasting area.

The primary targets are areas where there is poor to no Internet connectivity, such as Africa, the Middle East and some parts of Asia. Broadcasters are really reluctant to use shortwave now because the mass audience seems to have dissipated. However, Africa will continue to be their focus because the Internet is virtually a non-event across the continent.

Another factor is the disappearance of mass produced receivers equipped with the HF range. I know China is continuing to manufacture some models with HF but these are so poor in quality and only able to receive Chinese stations, either on shortwave or via domestic relays.

I realise that other HF spectrum users are still active but the continuing low level in sunspot numbers is not helping their usage of the spectrum. Digital modes have also taken over from existing analogue systems and have made it difficult to readily identify stations and/or locations, yet interesting catches still pop up.

As you may recall there was trouble recently in Thailand and again there were some broadcasters forced to rely on shortwave when the authorities switched off domestic relays of some International broadcasters. I noted CRI from Beijing in Thai on a variety of channels at the height of the crisis in Bangkok.

Tensions also escalated on the Korean Peninsula with a massive spike in jamming from both sides. To top it off, tension has also escalated in the Middle East between Israel and the rest of the Middle East. Jerusalem ceased their external broadcasts about two years back although the Israeli Defence Forces Radio is heard on 6973 USB. This is a relay of their domestic networks and can be heard around 2000, primarily in Hebrew yet with plenty of contemporary western music.

A new station in Papua-Nuigini has been heard on shortwave from near the borders of Indonesian West Papua or Irian Jaya. It is operated by the Oki Tedi Copper mine and is a community station and independent of the National Broadcasting Corporation (NBC) in Port Moresby. It is on two channels: 3915 and 5960 plus some FM outlets. It calls itself Radio Fly River and is in local indigenous dialects and English. I believe that the NBC wants to leave shortwave for FM very soon, so listen out on the 90 metre tropical allocation between 3.1 and 3.4 MHz during our local evening hours for the remaining provincial outlets. The major National program left shortwave some years ago.

It is midwinter here and although our autumn was very mild, it has still been cold. I have not had a chance to check out the midwinter propagation on the lower frequencies as in previous years but I have seen reports that the local midday phenomenon is still there, despite the absence of some European regulars.

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DXNews&Views continued

to operate all modes on 40-10 metres. QSL via RW6HS.

Carlos CT1END reminds everyone that the CT3 prefix is no longer being assigned to the Madeira Islands. The new prefixes are CQ3, CQ9, CR3, CR9, CS9 and CT9.

XU7ATM in Cambodia plans to be active August 10-17 on all HF bands, mainly RTTY but also SSB. Laurent will have a tribander up 22 metres and wires and a FT-897 100 watt radio. QSL via F8ATM, direct or bureau. He will upload to LoTW when possible if he can find an Internet cafe near his QTH. www.qrz.com/db/XU7ATM

6V7W is the callsign eventually issued to the Spanish team for their 24 to 31 July activity from Senegal. They will operate SSB, CW and RTTY on 160-6 metres with three stations. QSL via EA5KA. Further information can be found at www.6v7w.dxciting.com

A group of YL operators will be active as GB2SLH from Sumburgh Head Lighthouse on Shetland Island (EU-012) between 14 and 27 August. Main activity will take place during the International Lighthouse/Lightship Weekend on 21 to 22 August. QSL via M5YLO. They have a website at www.radioclubs.net/gb2slh/

IT9ABY, IT9WKU, IT9ZRU, IW9HJT and possibly IT9BLB will be active as 9H3Y from Malta (EU-023) from 24 to 31 July. They will operate on all bands SSB, CW and RTTY and will participate in the IOTA Contest. QSL via IT9ABY, direct or bureau.

Tony IK8VRH will be working in Kenya from May 2010 until April 2012. Requested callsign is 5Z4RH (to be approved by the Communications Commission of Kenya). Information on a new amateur radio shack for rent at a tourist resort in Malindi will be available in late June.

Good luck in the pile-ups until next month.

Special thanks to the authors of The Daily DX (W3UR), 425 DX News (I1JQJ) and QRZ.DX for information appearing in this month's DX News & Views. For interested readers you can obtain from W3UR a free two-week trial of The Daily DX from www.dailydx.com/trial.htm

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For restoration of a Pye Overland base station, type FM739A, and information at all. A manual with a circuit would be gold.
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Satellite Package 2: 2.4 metre mesh dish on polar mount, Chaparral C Band Polarator feed, Norsat Gold 15 K C band LNB, 24"actuator, Winersat WR920 RX (dish controller), $240.
Digital satellite RXs: UEC DSD660, $120; Nokia 9500S with DVB2000 S/W, $120; Xanadu DSR, $40; Zenith DTH300-S, $5; 2 x Pace DGT400's, $5 ea.

Other Satellite parts: Supertrack dish controller, $40; Dynalink C Band LNBF 'One cable solution', $15; California amp C band LNBF 25 K, $30; Chaparral Model C Ku LNB, 9.75/10.75 GHz LO's, $20; ACESAT Twin Ku LNBF's, $25 ea; California amp Ku LNBF, $10; Sharp Ku LNBF's, $15 ea; DX Antenna DSA527N Ku LNBF, $5; 2 x DX Antenna DSA527D Ku LNBF's, $5 ea; Zinwell SAB-09C coax relays, $15 ea; 4 x Irdeto CAM's, not CI, various ages and S/W, $20 ea; many other miscellaneous satellite parts.
Contact Roger VK2DNX, phone 02 9546 1927 or vk2dnx@hotmail.com

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Neville Chivers VK2YO, QTHR or phone 02 6674 2095.

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Peter VK4PO, phone 07 3390 1129 or 0417 785 677, or vk4po@bigpond.com.au

WANTED - QLD

Kantronics Paket Communicator 3, in good working order, or similar model Paket modem.
Contact Tom VK4TY on 07 3396 5944 or 0428 159 164, or tyapp@ozemail.com.au

FOR SALE – WA

Free to a good home – old issues of AR magazine.
Contact Bill VK6LT, email vk6lt@hotmail.com

WANTED – WA

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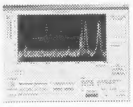

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Sundee arvo at Dick and Pip's

from page 28

In one of three speeches of the afternoon he explained what happened to *The Kookaburra* that crashed, killing pilots Keith Anderson and Bob Hitchcock. They had set out to look for their mates Charles Kingsford-Smith and Charles Ulm, missing in the famous *Southern Cross*.

Smithy and Ulm were safe and had landed in a remote area due to a shortage of fuel. Dick found wreckage, a Westland Widgeon, in 1978. The sister aircraft is fully restored and takes pride of place at Gundaroo.

The Bowylie Flying Club has a long sealed runway and all are welcome to land, usually by way of an advanced phone call to the property manager.

As Dick was speaking in the club-house the sound of a helicopter was heard, it got louder and turned out to be four choppers landing.

He politely excused himself to personally meet the unexpected arrivals. Who was the more surprised? Dick or the helicopter crews on being greeted by a famous aviator?

At first there were thoughts that this was a well planned stunt organised by our host. Not so: Army Major Andrew Middleton, 173 Aviation Squadron, explained how bad weather had forced them to interupt a training flight from Sydney to Adelaide.

In time for the Yaesu sponsored BBQ lunch, the army crew mixed with the crowd and were soon delighted to hear Dick's talk about his landing on a container ship in the middle of the Pacific Ocean, on his around-the-world solo helicopter flight.

Throughout the afternoon Dick was very personable, spending time to talk to anyone who wanted a chat or pose for a photograph.

Another attraction at the property is a two-foot gauge railway laid out in a figure-8 formation over 2 km, with either a 1904 German built steam engine originally used for mining in Kalgoorlie, or a small diesel loco, hauling a carriage with leather seats and a bar. The track is through a pine forest and around the homestead.

The rain did not dampen spirits, there was a real social atmosphere in the huge BBQ pavilion, and under the veranda of the club house.

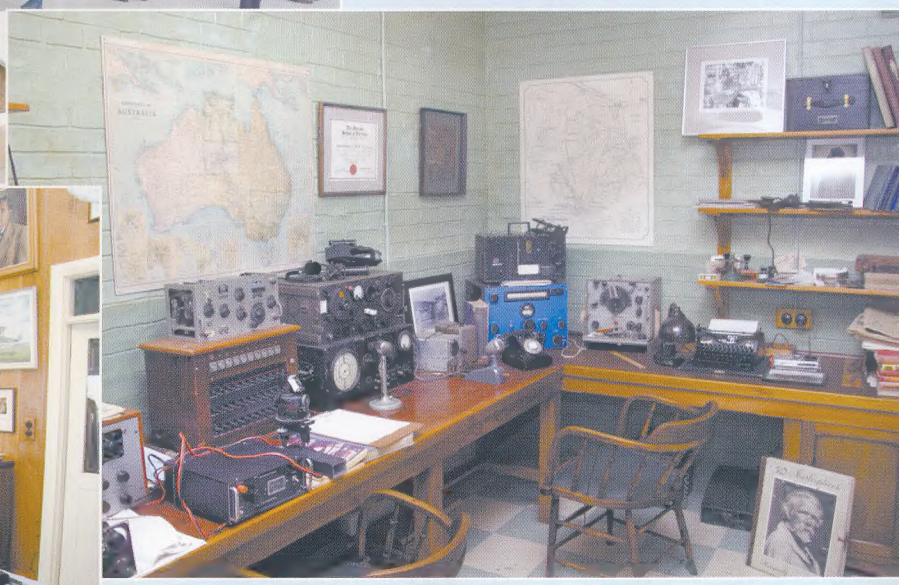
There was an opportunity to talk to old friends, some who had not met for decades. Others were readily introducing themselves after recognising someone from the name on their registration tag then engaging in an eye-ball QSO.

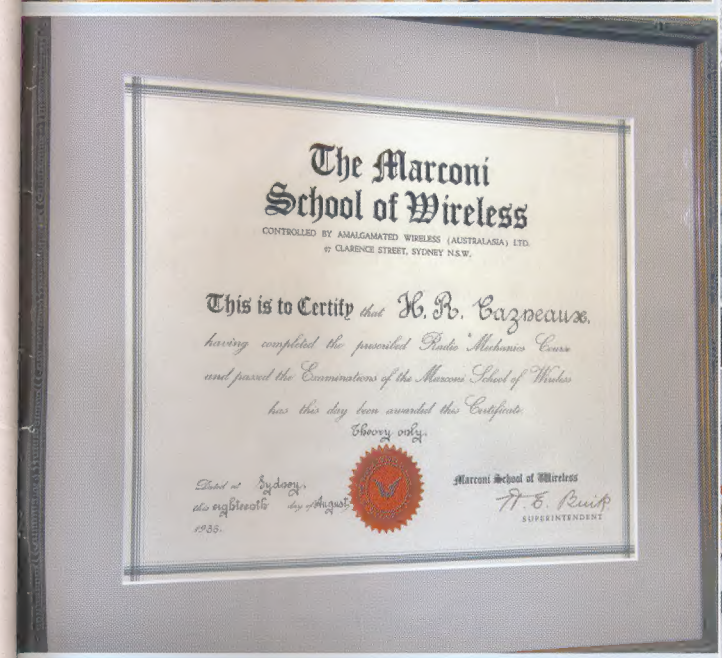
Our WIA Centenary Patron has moved from the time of larrikin stunts that promoted his business, and aviation adventures, but these will be long remembered.

The modern-day Dick Smith, aged in his mid-60s, is now engaged in other pursuits contributing in various ways to Australian life – a legend who will not retire into obscurity. **ar**

Facing page: some shots of the afternoon

Photos anti-clockwise from above:
'Dick's Toy Shed', the car gives scale.
The WIA group inside the hangar listening as Dick VK2DIK describes his adventures. The pilot's lounge, decor Circa 1930. The radio collection, of which a few pieces were familiar to some older members.





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Clockwise from above:
The Marconi Certificate of Uncle Harold, part of the amateur radio background that started VK2DIK down an interesting radio path.
The carpark at Bowylie with a fairly usual mix of vehicles.
The Army pilots and crew who literally 'just dropped in' posing with another civilian helicopter pilot of some aviation fame.

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